Education Library

March 1960

SCHOOL MANAGEMENT

PRACTICAL SOLUTIONS TO SCHOOL MANAGEMENT PROBLEMS

MAR 7 1960

How much does college really cost?

A PRACTICAL APPROACH TO IN-SERVICE TRAINING

needn't be

Fool-proof scheduling IN RECORD TIME

SEE COMPLETE CONTENTS ON PAGE 3

This schoolroom view shows H-O-N Credenza and letter file at left; desk at center; room dividers at right.

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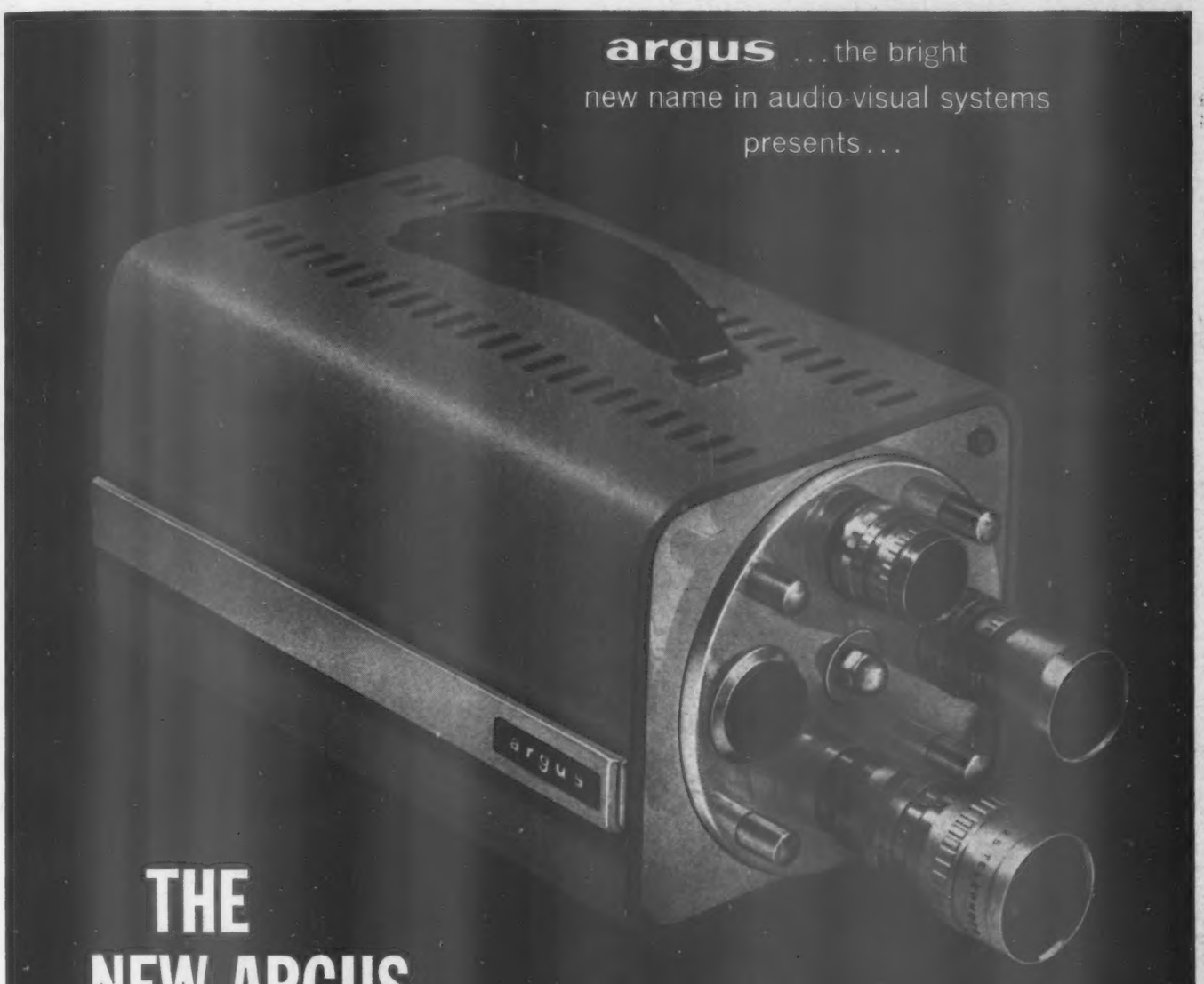

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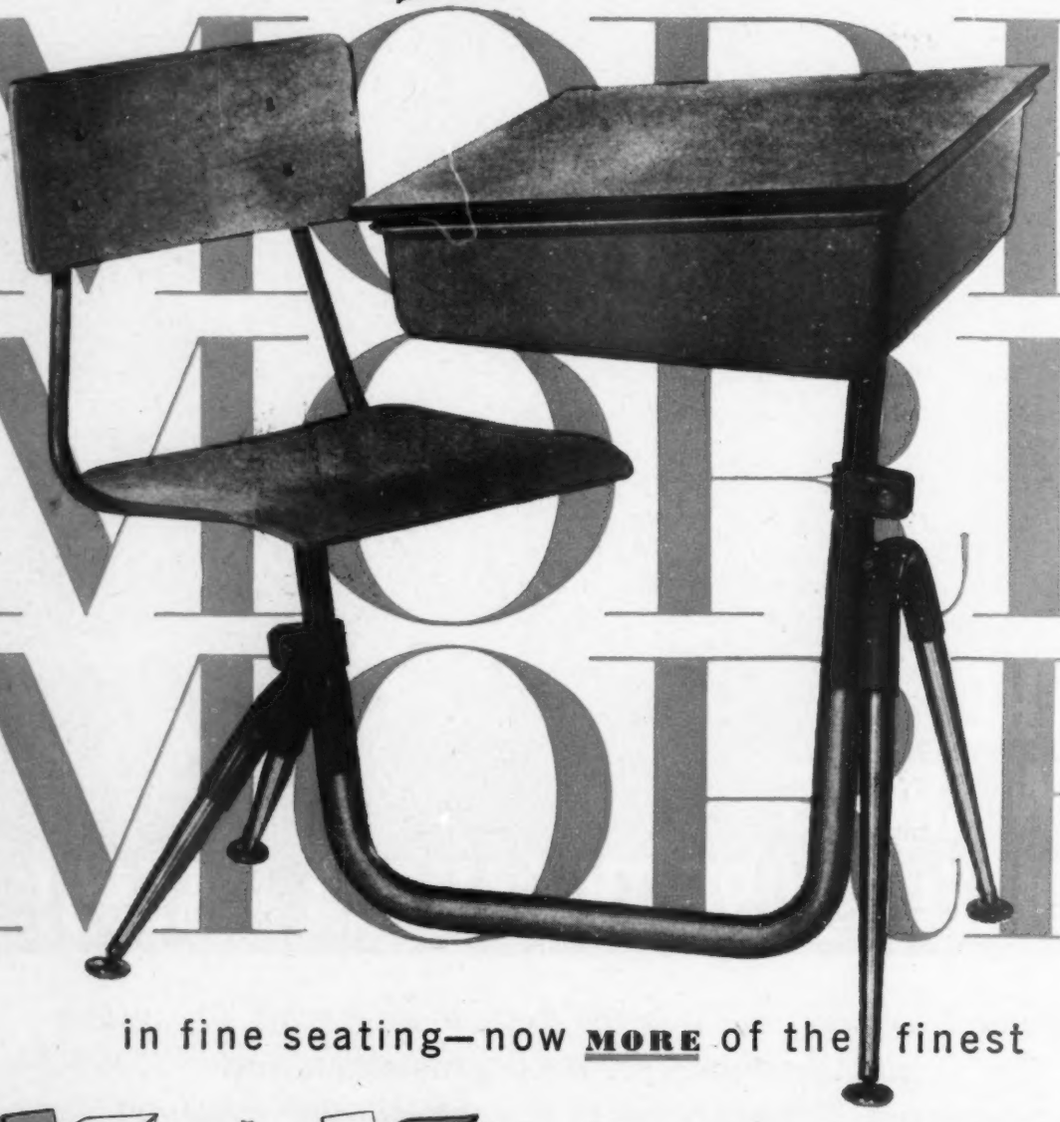

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Vol. 4 No. 3

S | M

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School_____ Address_____

City_____ State_____ Dept. 76

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(Circle number 711 for more information)

SCHOOL MANAGEMENT

22 West Putnam Ave., Greenwich, Conn.

Volume 4 Number 3

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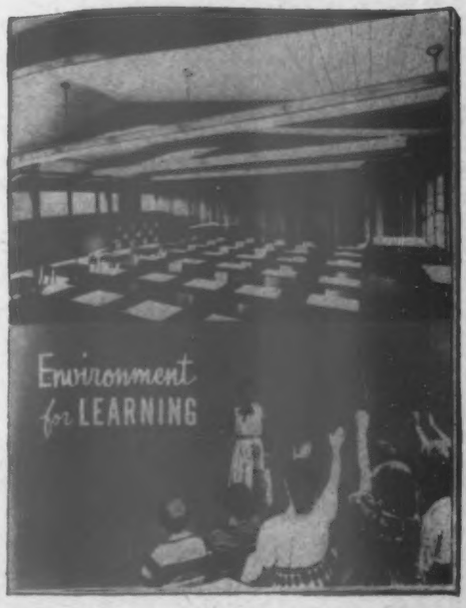

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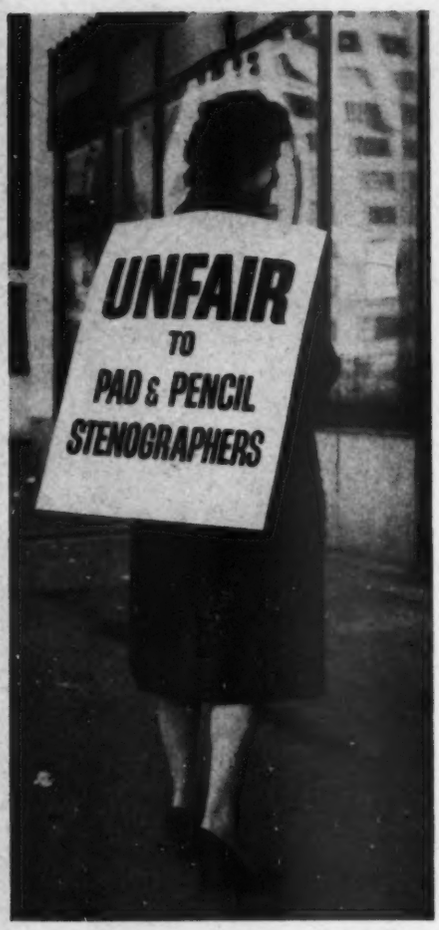
(Circle number 753 for more information)



who says you can't fight progress?

Some people just don't like to change. They fought the typewriter for years. First they said it wouldn't work. Then they claimed it was practical only for court reporters.

Now there are those who are opposing the shorthand machine. That it's much faster, far more accurate, even easier to learn, cuts no ice. That more and more business firms are coming to prefer it . . . that it is used in the United Nations, in the Congress of the United States and in all scientific fields, they consider inadequate justification.

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Teaching machines

SIR: I wish to compliment you on the excellent short article on "teaching machines," (SM, *Jan., '60, page 61*). While I pride myself on my skill in exposition, I must admit that I could not explain the ideas or operation of Crowder's exercises or my own so clearly and accurately in so little space.

I usually find bloopers in any popular account of the outcomes of our research and fire off an indignant correction to the unfortunate author. Hence I think it only fair to express my appreciation when a new development, such as this, is reported better than I could have done it myself.

PAUL B. DIEDERICH
RESEARCH ASSOCIATE
EDUCATIONAL TESTING SERVICE
PRINCETON, N. J.

"Lazy" school officials

SIR: In "The great grab bag—government surplus" (SM, *Dec., '59*) appears the statement ". . . indifference among some local school officials can only be attributed to laziness." This is used in reference to the comparatively small number of schools actively participating in surplus property distribution.

Do you know how the surplus property sales are handled in all states—Pennsylvania, for instance? Two three-hour periods per year are assigned to our county schools. Only two persons may be admitted to the surplus property warehouse from any one school in our county. No information is available as to what materials are in supply. Items selected must be taken with you when you leave. A single trip through the warehouse, without back-tracking, is what we have been informed is the only method permissible. The only location of distribution is in Harrisburg.

Consider what the above statements mean, in toto. With no information available as to what is on sale, you do not know whether to send science teachers, maintenance men, industrial arts teachers, administrators, etc. In going through the warehouse, having a limited amount of funds to spend, you do not dare to choose too many items near the beginning of the trip, lest you have insufficient funds for items discovered later, which are more in demand. Having permission to send only two persons through the warehouse at one time, you cannot take all the personnel to represent adequately the various departments which may well find specialized needs. Being assigned such arbitrary, limited, time, it often comes during dates when you cannot accept—one of ours habitually is listed in August, when none of the teaching personnel are available for the trip.

For the urban school districts located near Harrisburg, the government surplus distribution system is very worthwhile. For the small rural school district, located a considerable distance from the point of distribution, it is just another peg for some disgruntled patron to hang on the epithet: "lazy" for our lack of utilization—even when non-utilization is based on experience which proves it to be something other than the pot at the end of the rainbow.

Sometime, after leaving on a 200-mile journey following a full school day, arising and attending a surplus property sale, driving over 200 miles to be back in time for a school board meeting, and having for your troubles one bolt of surplus marine-green wool cloth, a bolt of lighter material, a tarpaulin, and a rebuilt sextant, see if you wouldn't like to be labeled "lazy" because you do not jump at the chance to make the same trip again—most likely in February, when there is a bit of a chance there will be snow on the ground.

I do, believe it or not, find your magazine very enjoyable, as well as extremely useful. With no thought of currying favor I can truthfully say it is the most generally helpful professional publication entering my office.

THOMAS K. BARRATT
SUPERVISING PRINCIPAL
SHEFFIELD AREA JOINT SCHOOLS
SHEFFIELD, PA.

Best issue

SIR: Permit me to congratulate you and your staff for what I considered the best issue of your magazine, January 1960.

Keep up the good work.

THEOS I. ANDERSON
SUPERINTENDENT OF SCHOOLS
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Brunswick

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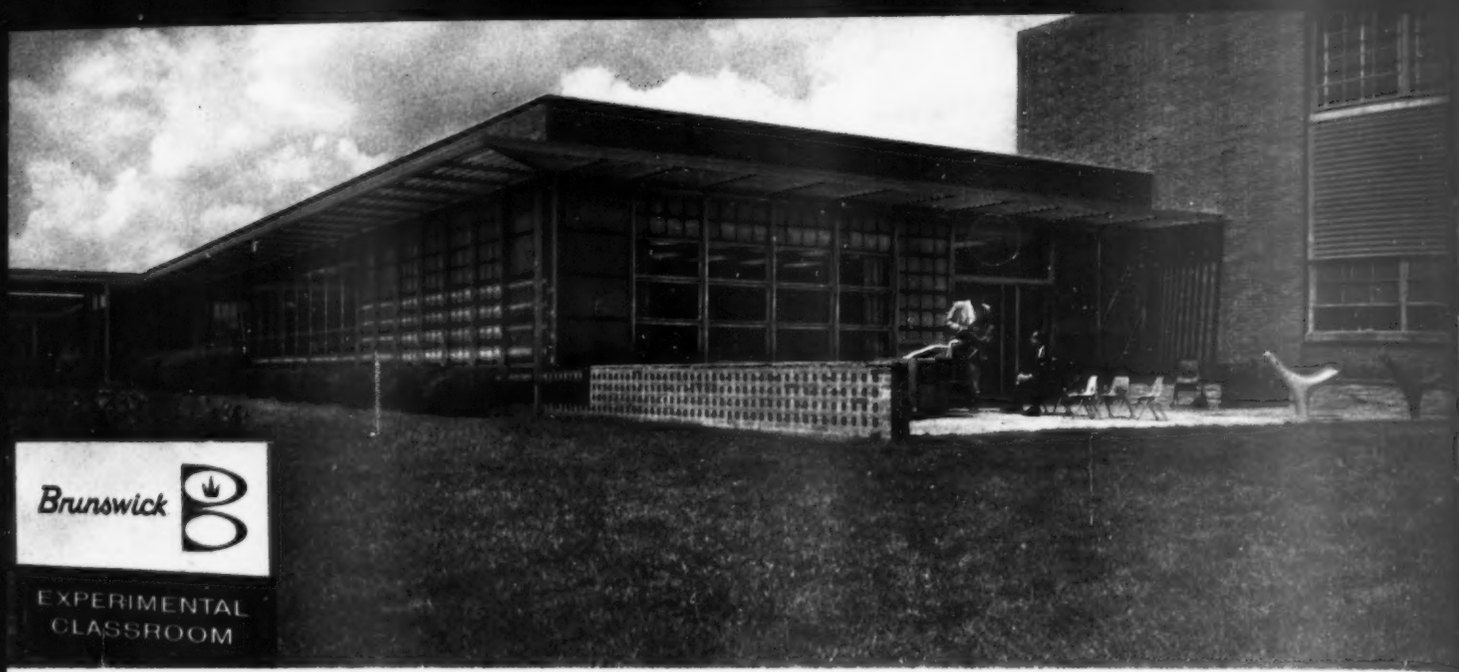

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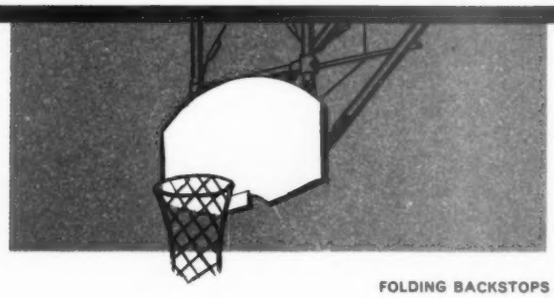

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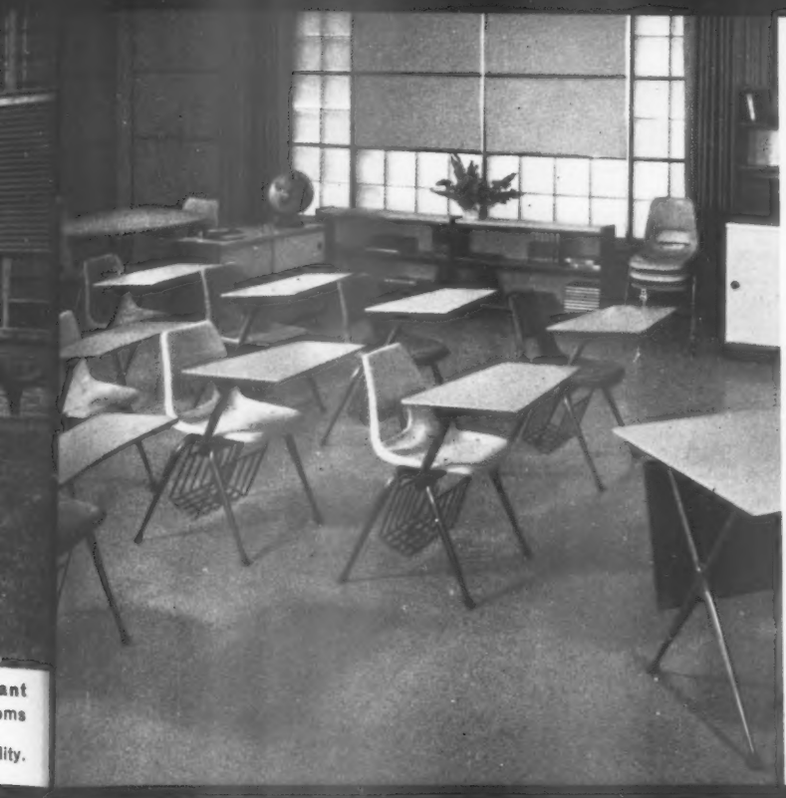

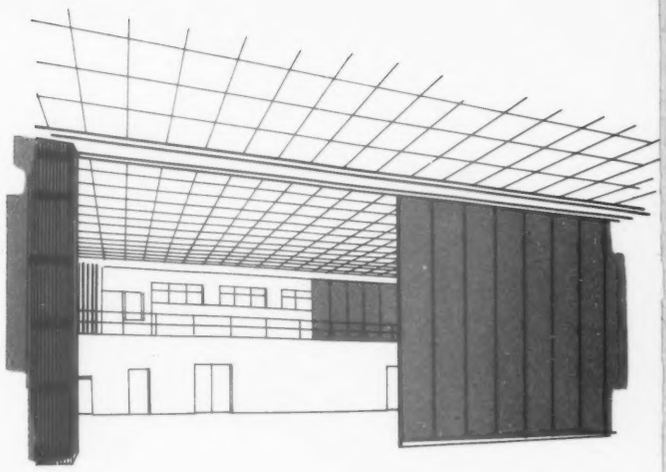

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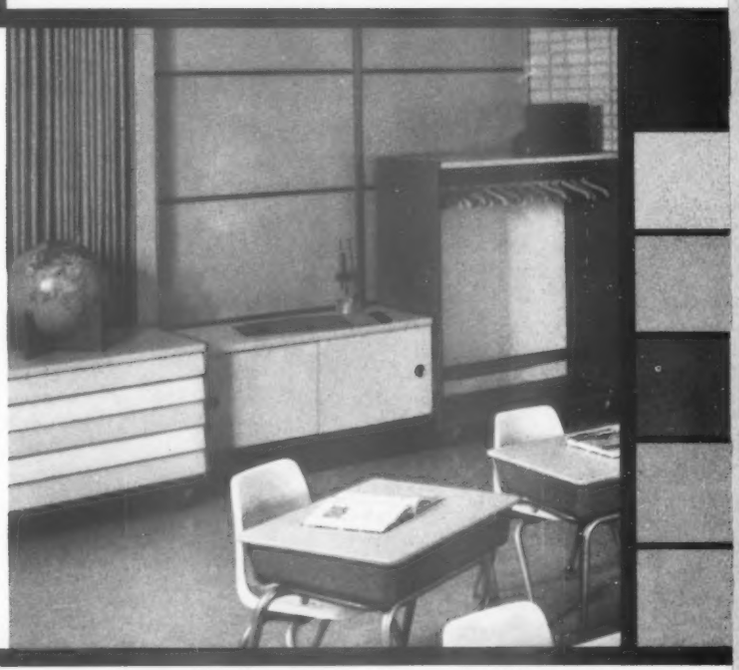

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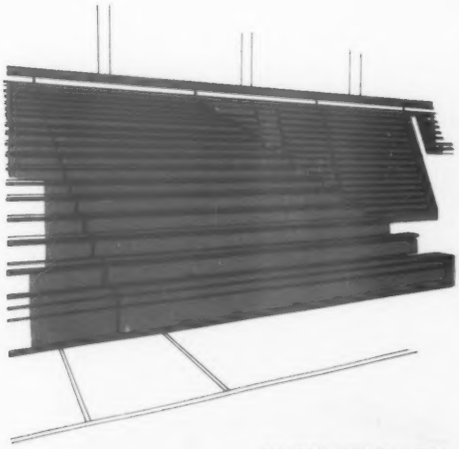

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WHERE TO GET HELP

A guide to useful information

SCHOOL ACCOUNTING

Property and financial. Two new U. S. Government publications are designed to facilitate accounting procedures in schools. The first deals with school land, buildings and equipment of local and state school systems; the second with school activities financed wholly or partially by individual schools. Both standardize the nomenclature in their fields and feature standard accounts which have been classified and defined for use by school systems or schools of all sizes and descriptions. Illustrative forms and procedures for handling standard accounts are included.

PROPERTY ACCOUNTING FOR LOCAL AND STATE SCHOOL SYSTEMS. *Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C. 75¢.* FINANCIAL ACCOUNTING FOR SCHOOL ACTIVITIES. *50¢.*

AUDIO VISUAL

Free tapes, scripts, transcriptions. The completely revised, sixth edition of this guide to free listening materials, lists 100 free tapes, 277 free scripts and 134 free transcriptions for use in schools. Available materials are classified and described by subject; running time is listed; the names of distributors are provided; and all terms and conditions of loan are clearly stated. In addition, the guide is color-keyed for easy, fingertip reference. Also included are information and suggestions on the purposes, nature and use of tapes, scripts and transcriptions.

EDUCATORS GUIDE TO FREE TAPES, SCRIPTS AND TRANSCRIPTIONS. *Sixth Annual Edition, 1960. Published by Educators Progress Service, Randolph, Wis. 225 pages. $5.75.*

CURRICULUM

What is chemistry? A book about chemistry containing not a single chemical formula is one that deserves the attention of the non-scientific reader interested in its meaning and importance in our schools. This survey of all things chemical ranges from the composition of outer space to the creation of life and links chemistry's past with the most recent work done in synthetic materials, adhesives, soil conditioners, protein and life chemistry, etc. Written in language every reader can understand, the book familiarizes him with the potent tool man possesses to convert matter to his own uses.

UNDERSTANDING CHEMISTRY, *by Lawrence P. Lessing. Published by Interscience Publishers, Inc., 250 Fifth Ave., New York City. 192 pages. $3.50. (Paperbound edition, published by the New American Library, 50¢.)*

VOCATIONAL EDUCATION

The mentally retarded. Preparation for employment and economic self-sufficiency is one of the most important needs of the mentally retarded. This report of a study—co-sponsored by the U. S. Department of Health, Education and Welfare—of what is being done for the mentally retarded in various areas of the country, presents illustrative programs now in effect in many American communities. Among the cities included in the report: Baltimore, Cincinnati, Detroit, Jacksonville, Fla., Lansing, Mich., New York City, Santa Barbara, Calif., and Sidney, Neb. Subjects covered include classroom programs, pupil selection, schoolwork programs, placement services, student evaluation and many others.

PREPARATION OF MENTALLY RETARDED YOUTH FOR GAINFUL EMPLOYMENT. *Published by the U.S. Department of Health, Education and Welfare, Washington, D.C. 86 pages. 35¢.*

COLLEGE TESTING

Cooperative program. A 26-page booklet, just released, presents details of the new American College Testing Program developed by the University of Iowa. Among the benefits claimed for the new plan: Colleges are given, in advance of test, full details of students interested in attending; colleges will be saved the time, money and effort involved in their own on-campus testing programs; cooperating colleges will receive, at no cost, test validation services and interpretation studies. High schools will be supplied with test

continued on page 16

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In addition to providing top dependability, Economite Lo-Blast Gas burners add a bonus of savings in operation. The unit controls primary and secondary air perfectly, functioning independently of variable natural drafts. The unit is especially well-suited for down-draft boilers.

Gas heating can give your schools safe, economical service. For specific information, take advantage of the consulting services provided by your Gas company, as well as Mid-Continent. They have trained heating specialists who have been working with architects, engineers and school boards for years. If you want further information, check with your local Gas company's heating specialist, or write to Mid-Continent Metal Products Co., 1960 N. Clybourn Avenue, Chicago 14, Illinois. *American Gas Association.*

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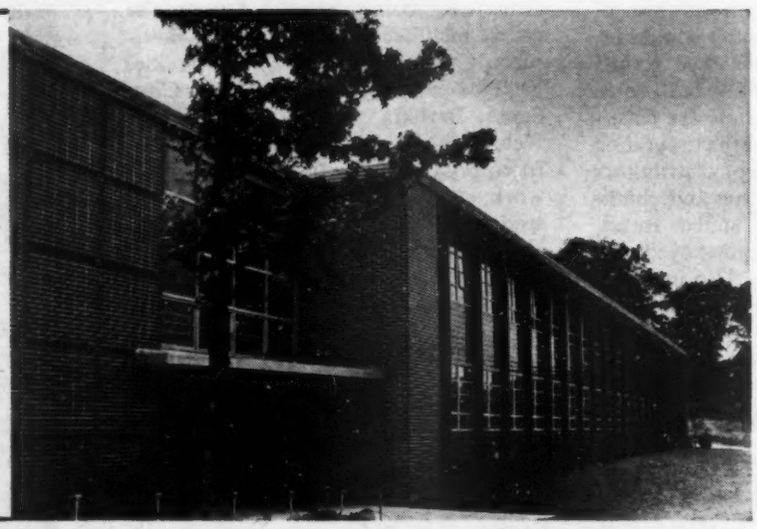

Birmingham's Board of Education specified Gas for heating most of its new schools. Experience has proved Gas to be more convenient, cleaner and cuts down on labor costs.

"With the style of architecture we want here in Birmingham, we find that it's more sensible to have small boilers in each building rather than try to build a central plant and pipe the heat to each building," states Mr. Fred J. Kelley, business manager of the City Board of Education. "In many of these new installations, we have specified Lo-Blast Power Gas burners because of their good record here in Birmingham for safe, consistent performance, plus low-cost installation and operation."

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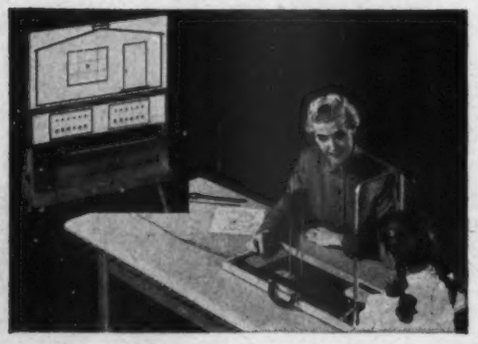

AO School Vision Screening Test—One out of five school children need professional eye care. The AO School Vision Screening Test is the best way to determine who they are. It presents the basic Massachusetts Vision Test elements fast and efficiently at the standard 20 feet and 16 inches. By simple "pass-fail" tests you can readily determine which children should be referred to an eye specialist for possible vision care. Entire unit folds into compact carrying case...can service any number of schools.

AO Projection Magnifier—low-cost reading aid offers a new world of learning to children with impaired vision. Now, many can attend regular classes with their more fortunate classmates. The AO Projection Magnifier is portable...just plug in and switch on. Place reading material-standard text books, magazines or newspapers on free-moving platform and read direct from 4½" x 12" illuminated screen. Two models available—one enlarges 3 times; the other, 5 times.

American Optical COMPANY
INSTRUMENT DIVISION, BUFFALO 15, NEW YORK

Dept. C-145—Please send full information on:
- ☐ AO Projection Magnifier
- ☐ AO School Vision Screening Test
- ☐ AO H-R-R Color Vision Test

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data to be used in their guidance programs and, in addition, will receive a report of the grade point averages made by each of their graduates during their first year in college. The high school student will obtain valuable information about his own abilities, will be able to qualify for scholarships and will have to take fewer college entrance tests as a result of participating in the new ACT program.

ACT—THE AMERCAN COLLEGE TESTING PROGRAM. *American College Testing Program, Box 168, Iowa City, Iowa. 26 pages. Free.*

EVALUATION

Quality in schools. The purpose of this pamphlet is to help the lay citizen measure the value of his schools. It presents general standards, developed by a number of organizations and individuals, in seven areas: school goals, the school program, teachers and teaching, school buildings and equipment, finances, organization and administration and citizen action. The last section of the pamphlet is devoted to a self-quiz on school quality consisting of 80 questions about schools, their operation and purpose. From his answers to these questions the interested citizen can determine two things: what areas he should investigate further to round out his knowledge of the function and purpose of his school system; and where improvements can be made in his schools to upgrade the quality of education in his community.

YARDSTICKS FOR PUBLIC SCHOOLS. *Available from Better Schools, 9 East 40 St., New York 16, N. Y. 26 pages.*

EDUCATION: PUBLIC, PRIVATE

The Catholic view. The position of the Catholic Church on the subject of education is clearly presented in this calm, reasoned book by Neil G. McCluskey, S.J., for the past several years education editor of *America*. The author gives a brief history of American education in which he includes the description of the development of the Catholic educational system. He discusses the touchy questions of the use of public funds for transportation, welfare and textbooks for parochial school children, release-time programs and religious training in public schools. Father McCluskey explains, as well, why his church demands of Catholic parents that they provide their children with a religious education. The book is neither a plea for special privilege nor a condemnation of our public educational system. It is a clear statement of the Catholic position which

continued on page 20

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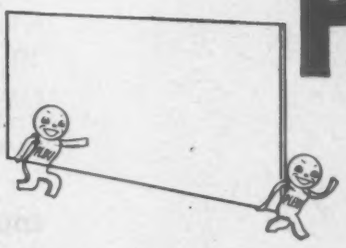

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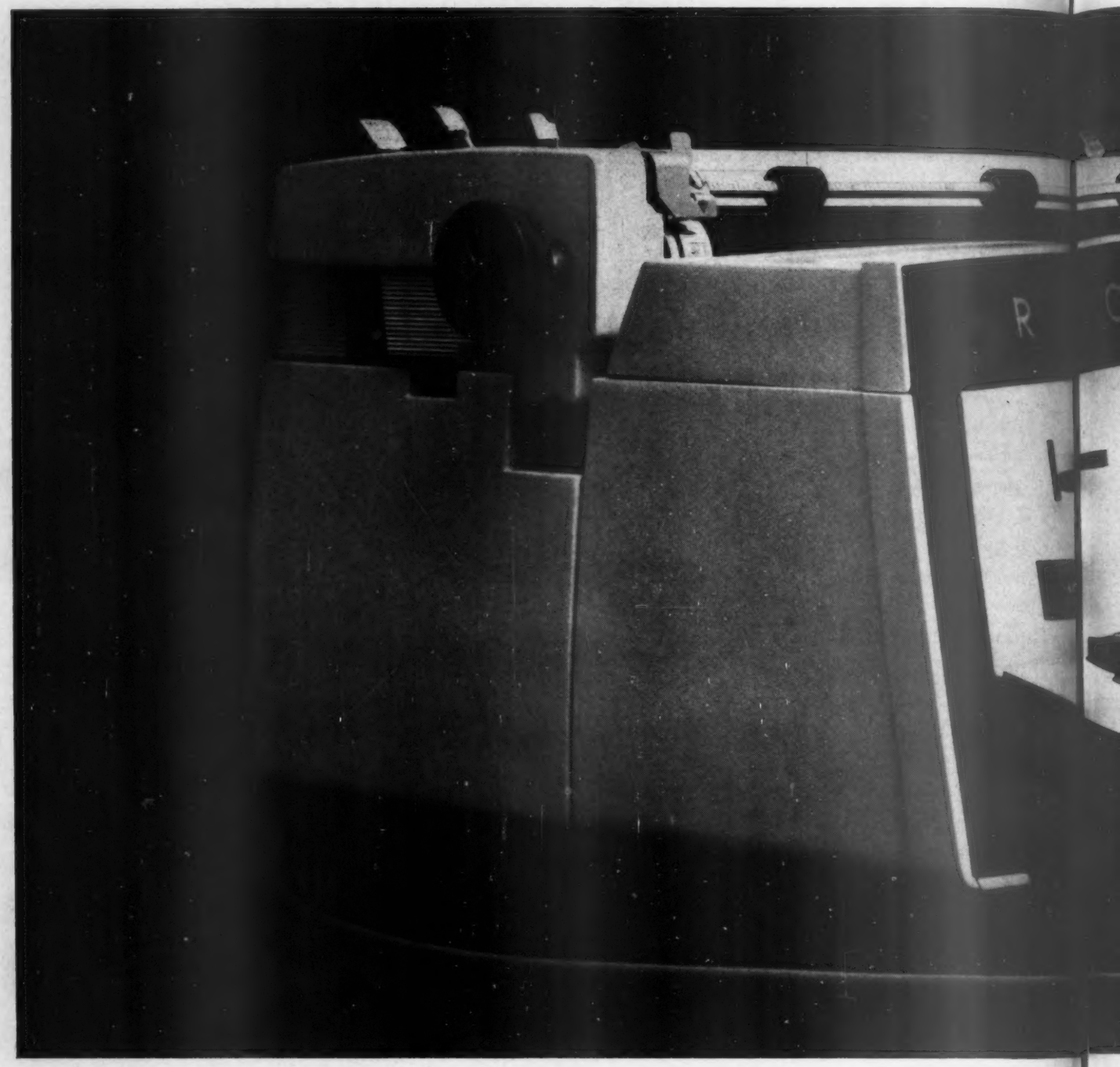

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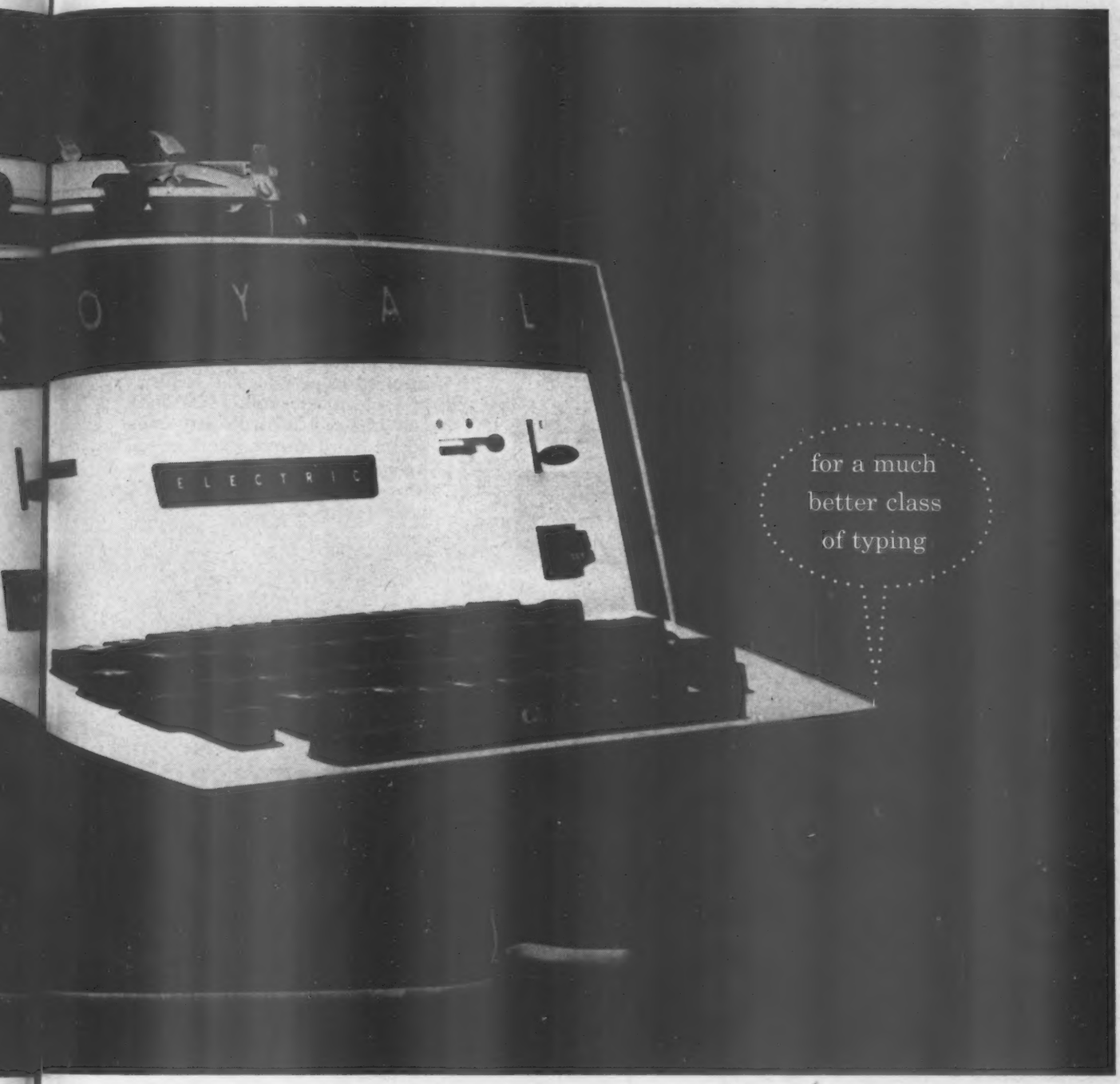
Here's the greatest teaching typewriter you've ever seen . . . the new Royal Electric . . . ready just in time for your Spring buying plans.

From the first, beginners make encouraging progress and enjoy a feeling of satisfaction. Smooth electrical operation of the new Royal Electric simplifies motions so that students concentrate at once on the basic problem—learning to type.

But the new Royal Electric is much more than a beginner's typewriter. It's also the machine for your advanced classes, for the trend to electrics evident in offices everywhere. For example, it's the only electric that has both carbon and fabric ribbons as standard equipment, at no extra cost.



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must, inevitably, remain in conflict with the prevailing philosophy of public education in the United States.

CATHOLIC VIEWPOINT ON PUBLIC EDUCATION, *by Neil G. McCluskey, S.J. Published by Hanover House, Garden City, N. Y., 192 pages. $3.50.*

FINANCE

Rural schools. During 1955-56, the average annual salary of teachers in rural county school systems was $3,123. Annual rural school salaries varied from an average of $1,640 in the lowest paying area to $5,731 in the highest paying area, a ratio of 3½ to one. These salaries were almost always higher than the average annual income of families living within the same regions, though high salaries generally were paid in regions where family incomes were also high and low school income was accompanied in the same area by low family income. The average expenditure per pupil in the most rural counties was less than two-thirds of that in the most urban school systems. An average of $21 of this expenditure went for pupil transportation to and from schools, with the most rural systems spending seven times the amount spent by urban systems for this item. These are but a few of the statistics available in this published account of rural school finance.

SELECTED INDEXES OF RURAL SCHOOL FINANCE. *Published by the U. S. Department of Health, Education and Welfare, Washington 25, D. C. 20 pages. 20¢.*

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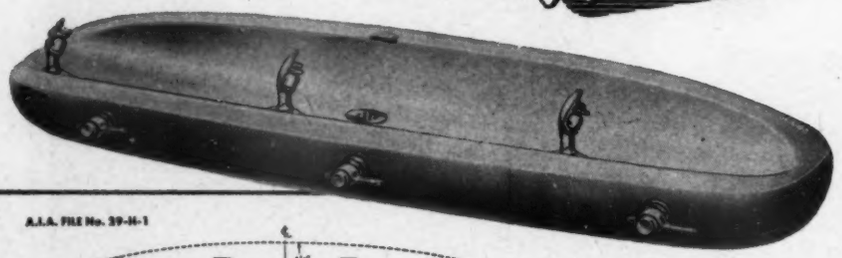
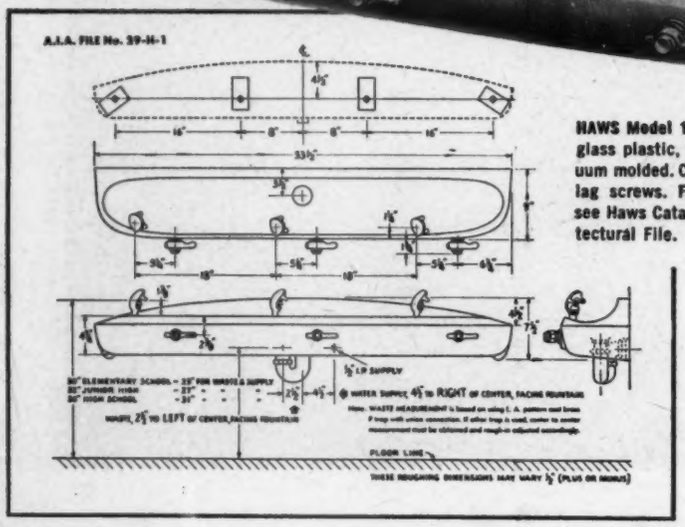
in choice of **COLORS** HAWS





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See HAWS Catalog in Sweets Architectural File for data on the entire Haws line.

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SCHOOL BUILDING

Planning the program. While written specifically for superintendents, this book should prove valuable to anyone involved in planning the construction of a school. As a basic guide, checklist and primer, it is particularly suited to school board members seeking needed technical information about the problems involved in planning and carrying out a school building program. The book is divided into three major sections: 1) Policy decisions dealing with the detection of needs, agreement on them and the advancement of school building projects to fill these needs; 2) Program recommendations, concerned with the evaluation of existing plant, the development of community standards for school facilities, site selection and development and the preparation of technical specifications; and, 3) Project administration, which discusses legal problems, finance, public relations, design and construction and time scheduling in advance of occupancy.

ADMINISTRATION OF THE SCHOOL BUILDING PROGRAM, *by Wallace H. Strevell and Arvid J. Burke. Published by McGraw-Hill Book Co., Inc., 330 West 42 St.. New York City. 443 pages. $7.50.*

PHYSICAL EDUCATION

Fitness standards. Though aimed at students enrolled in colleges and universities, this report of the College Physical Education Assn. should be read, too, by secondary school administrators concerned with the fitness of youth. The report challenges all students to begin developing essential qualities of fitness while they are young, not to wait until they are in their 40's or 50's when such measures may be too late. It reminds them of what they must do to preserve the state of health necessary for survival in our sedentary age and gives specific information about what fitness is, how to tell when one is fit, how to become and stay fit, how college physical education contributes to fitness and how to keep fit after college. The report stresses the fact that permitting oneself

Think in terms of bright-eyed youngsters

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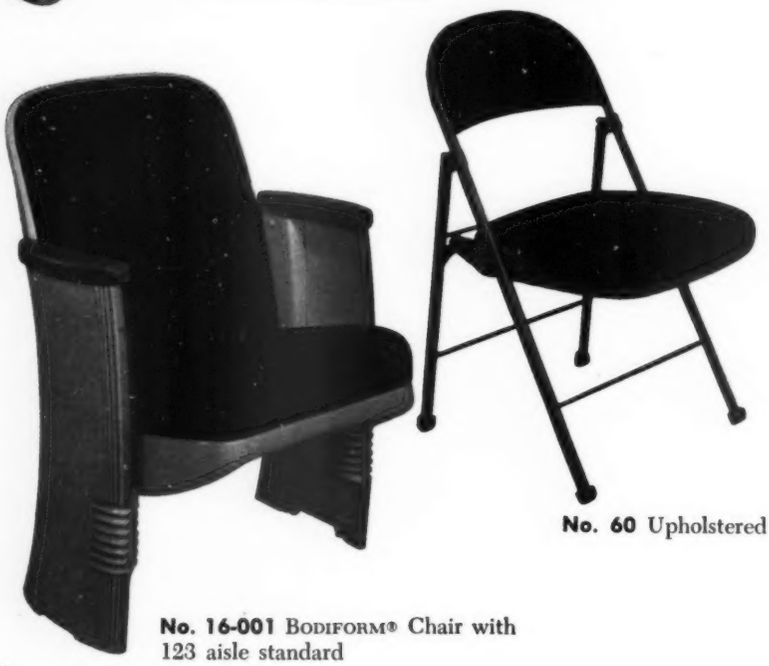

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to become unfit sets up severe mental and physical roadblocks to success in academic work and later career pursuits.

FIT FOR COLLEGE. *Published by the American Association for Health, Physical Education and Recreation, 1201 16th St., N.W., Washington 6, D.C. 24 pages. 50¢.*

PUBLIC EDUCATION

Pro and con. A number of authorities present their opinions on teaching the fundamental subjects, the methods of Soviet education, the proper handling of the gifted child, schoolhouse "palaces," and many other matters of importance to America's schools in this recently-published anthology. Included among the critics and defenders of our system of public education: Arthur Bestor and Theodore Brameld discussing Admiral Hyman Rickover's book, "Education and Freedom"; John Keats and Herbert L. Brown, Jr.; Paul Woodring; James Bryant Conant; Fred M. Hechinger and many others prominently identified with American education. Most of the material contained in this anthology, culled from the popular press of the past few years, was written with the layman in mind. As such, it serves as an excellent required reading volume for new school board or citizen committee members anxious to brush up on the important issues in American education today.

THE GREAT DEBATE: OUR SCHOOLS IN CRISIS. *By C. Winfield Scott, Clyde M. Hill and Hobert W. Burns. A Spectrum Paperbound Book published by Prentice-Hall, Inc., Englewood Cliffs, N.J. 184 pages. $1.95.*

SALARY SCHEDULES

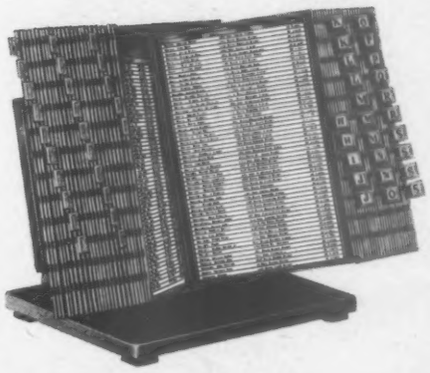
Teachers and administrators. Country teachers are paid 25% less than those in cities, on the average, according to the NEA. The association's research division declares, on the basis of its study of 1958-59 salary schedules, that urban teachers received an average salary of $5,313 in that period while the average salary for rural teachers was only $4,013. This is a marked improvement over 1934 when the average rural salary was only 45%—less than half—of the urban salary. The NEA study shows, too, that percentage increases for administrators are now on a par with those for teachers. Formerly, classroom teachers' salaries had risen faster. The average urban school superintendent in 1958-59 earned twice as much as the average teacher; high school principals earned about 50% more than classroom teachers; and elementary school principals about 45% more. Greater differences were recorded in larger school systems.

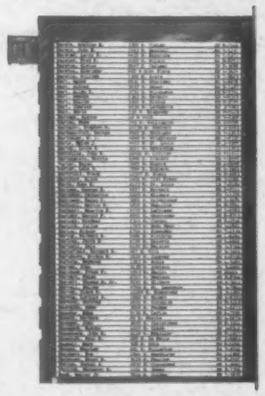
SALARIES AND SALARY SCHEDULES OF URBAN SCHOOL EMPLOYEES. *NEA Research Division, 1201 16th St., N.W., Washington 6, D. C. 50¢.*

MAINTENANCE

Rating vacuum cleaners. Purchasers of school maintenance equipment can evaluate competitive vacuum cleaners using comparison methods recently adopted by manufacturers of such machines. The method of rating adopted voluntarily by the trade is explained in this short government bulletin. Essentially, it permits the rating of vacuum cleaner performance in terms of a) air flow at definite values of vacuum and b) electric energy consumed to produce such air flow. This air flow is to be measured at the end of a specified length of hose with a specified size of orifice.

METHOD OF RATING COMMERCIAL AND INDUSTRIAL TYPE VACUUM CLEANERS (PORTABLE AND MOBILE). *Published by the U.S. Department of Commerce, Washington, D. C. 12 pages. 10¢.*



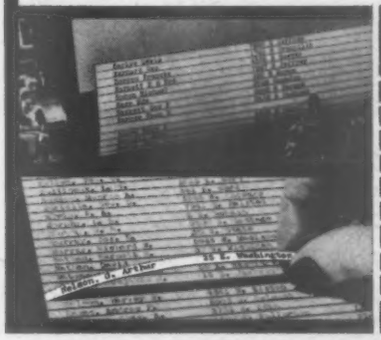


Acme Visible Flexoline Indexes Make Student Facts Easy To Find

School's packed—classes humming—but who's who and where? There's an inexpensive way to find out as quick as a glance. Acme Visible Flexoline indexes give you fingertip control of the complete student enrollment—serve as a cross index to home room or class.

There are no cards to re-shuffle—no lists to re-type to keep reference day-to-day perfect. Minimum school office personnel easily handles these portable units with capacities of 350 to 25,000 names.

Write Acme Visible for more facts about the world's fastest reference equipment for educational administration. FREE detailed booklets illustrate various school record systems—one tailored to your needs. MAIL THIS COUPON NOW!



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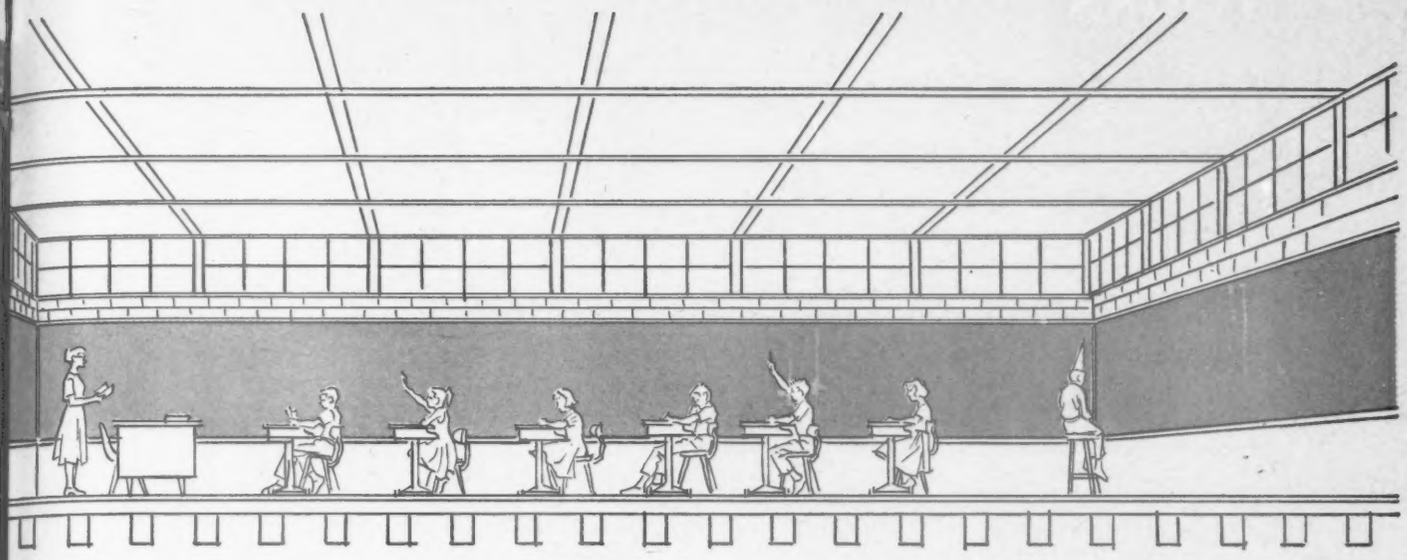

New Johns-Manville *Colorlith*® Chalkboard

Never before has one material solved so many classroom problems

Architects say—Handsome color and texture run all the way through this homogeneous sheet . . . can't wear off.

Teachers say—Colorlith makes an ideal smooth, hard writing surface—erases easily—reduces writing fatigue.

Pupils say—We like the color . . . it's easy on the eyes . . . and we can always see what's written on it.

Maintenance Superintendents say—Colorlith is easy to maintain. Wash occasionally with clear water. Remove stains with household cleansing agents.

School Supervisors say—Colorlith chalkboards have the strength and durability to withstand daily classroom usage and give many years of service.

Taxpayers say—Meets the requirements of premium quality boards at low prices . . . and it's strong enough not to need any expensive backing.

Everyone connected with today's school problems of cost vs. quality finds an answer in new J-M Colorlith Chalkboard. Here is a dense, new homogeneous sheet developed to provide the same smooth, hard writing surface and light reflectance values as premium chalkboards—but at lower cost.

Colorlith gets great strength from integral mixing of Portland cement, carefully selected asbestos fibers, and selected pigments. It can be used in ¼" thicknesses without expensive backing to make it rigid. Accurately butted joints need no divider strips which could hinder writing. Comes fully finished and ready to use as a self-supporting wall member. Its natural finish is durable—colors and pattern cannot be scratched off. Withstands heat, flame, moisture (fully washable) . . . acids and solvents in working concentrations.

Write for Colorlith specification sheet IN-230A and brochure EL-62A. Johns-Manville, Box 14, New York 16, N. Y. In Canada, Port Credit, Ontario.

JOHNS-MANVILLE JOHNS-MANVILLE JM PRODUCTS

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YOURS FOR THE ASKING

These booklets—promotional and otherwise—contain ideas of possible value to you and your schools. Each item listed will be sent to you without cost.

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Slide rule package. A giant demonstration slide rule in one of three models, together with a set of instruction manuals written by Professor Maurice L. Hartung, University of Chicago, and a course outline are available to secondary school teachers from Pickett & Eckel, Inc. The teachers' kit contains two manuals for trigonometric computations and two manuals on advanced mathematics as well as the basic treatment, the teaching outline.

For a free slide rule package, circle number 887 on the Reader Service Card.

Airless spray painting. An eight-page, two-color booklet from Nordson Corp. explains how the company's airless spray coating equipment operates and what the advantages of the system are. Savings on coating materials used with this new system have run as high as 50% and sometimes more, for these reasons: overspray is kept at a minimum; the need for thinner is greatly reduced; improved coatings result in many more satisfactory jobs; film thickness can be easily controlled and improved adhesion, flow-out and uniformity result in better finishes. Other savings described in the booklet include cuts in labor time, less disruption of activities during painting sessions, reduced need for air exhaustion equipment, less hazard from fire, etc.

For a free copy of this booklet, circle number 884 on the Reader Service Card.

How to design with laminates. A colorful, fact-packed manual of design has been prepared by Unit Structures, Inc., for architects, designers and all others interested in information about glued laminated wood structural members. In addition to data on various types of laminated arches and beams, the manual provides arch and beam connection details, comprehensive roof beam design charts, specifications for glued laminated construction, color selection chart for stain finishes, details and specifications on structural roof decking and much other pertinent information.

For a free copy of this manual, circle number 902 on the Reader Service Card.

Specialized lighting effects. In a 56-page, three-color catalog, Mole-Richardson Co. presents a wealth of information about its complete line of lighting equipment for motion picture, still and television productions. Also included are supplemental materials describing special effect devices. A four-page reprint, also available, gives basic professional techniques of motion picture set lighting. School stagecraft directors should find these materials of invaluable help in planning productions.

For a free copy of this catalog, circle number 900 on the Reader Service Card.

Economical maintenance painting. A number of money-saving features are included in a 12-page illustrated guide available from Barreled Sunlight Paint Co. Among them: why price per gallon is an inaccurate measure of paint costs; a simple formula for comparing paint costs; three ways to save on painting costs; and spray painting vs. brush or roller jobs. Savings are discussed in terms of labor, material and the endurance of the paint job over the years. Such terms as coverage, hiding power and balance are explained in detail.

For a free copy of this guide, circle number 885 on the Reader Service Card.

Story of coal. An easy-to-understand, colorful, 12-page booklet tells the story of anthracite from its formation millions of years ago to its use in home and industry today. Highlights of the booklet are descriptions of the different kinds of coal, how coal is mined and processed and how this fuel is distributed. An interesting chapter is devoted to anthracite's non-fuel uses, as well. In addition to facts about coal, the booklet contains an interesting "just for fun" project—how to grow anthracite coral—which can serve as a chemical experiment as well as classroom recreation. A useful educational aid, the booklet can be used in grades six through 12 in general science, materials of industry or chemistry classes.

For a free copy of this booklet, circle number 844 on the Reader Service Card.

Choosing generator plants. Onan's recently-added line of high-capacity electric generating plants is described and illustrated in the company's 1960 general catalog, printed in two colors. Within its eight pages are listed more than 45 basic models of the firm's gasoline and diesel engine driven generator sets. Each series of plants is described in detail, with specifications for both engine and generator given to make it comparatively simple for the reader to select the proper type of generating plant for his particular use. A chart outlines such details as plant capacity, model number, voltage, starting method, dimensions and weight. Optional accessories for each series of generating plants are also illustrated.

For a free copy of this catalog, circle number 842 on the Reader Service Card.

Giant film index. Indiana University's Audio-Visual Center has released its 664-page 1960 Educational Motion Pictures Catalog, listing approximately 6,000 films of cultural, social and educational value, recommended for use from nursery school through college. An easy-to-use, descriptive index to the 16mm films in the University film library is included in the current publication which replaces the 1956 catalog and its three supplements. The listed films are arranged by subject-matter

continued on page 120

The new Service Products Division laboratory in Racine, completed in 1959, is devoted exclusively to development of products for maintenance and industry.

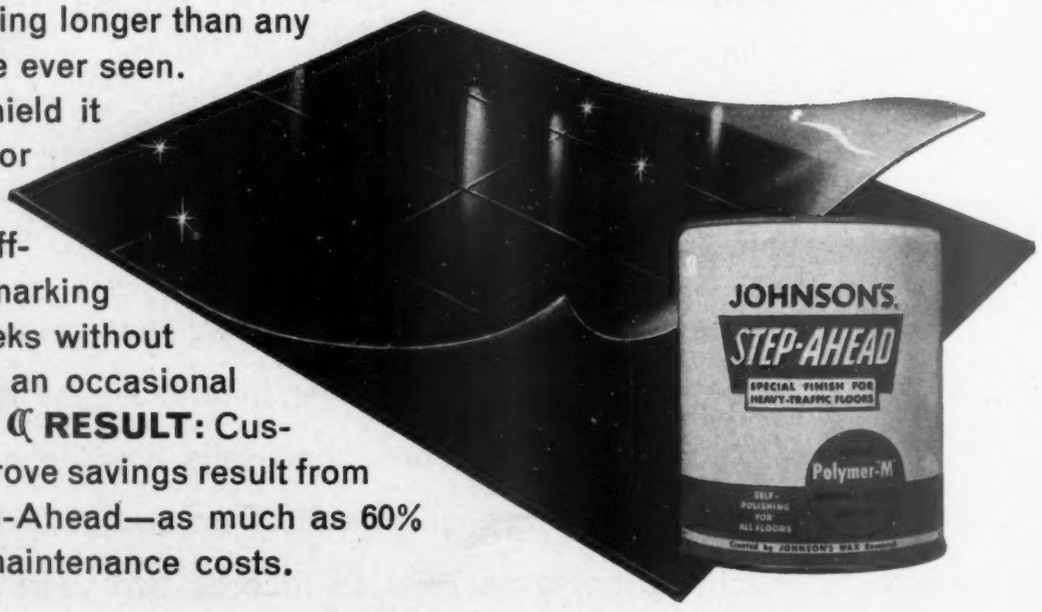
Building maintenance today is a challenge. Buildings everywhere must be better maintained than ever before. At the same time, costs must be kept down. ℭ This report tells how Johnson's Wax is helping meet this challenge with new and better products —most of which did not even exist as little as two years ago.

Special Report

JOHNSON'S WAX 1960

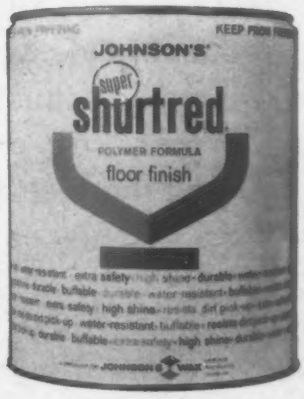
A FLOOR FINISH THAT LOOKS BETTER, LASTS LONGER, requires less work to maintain...

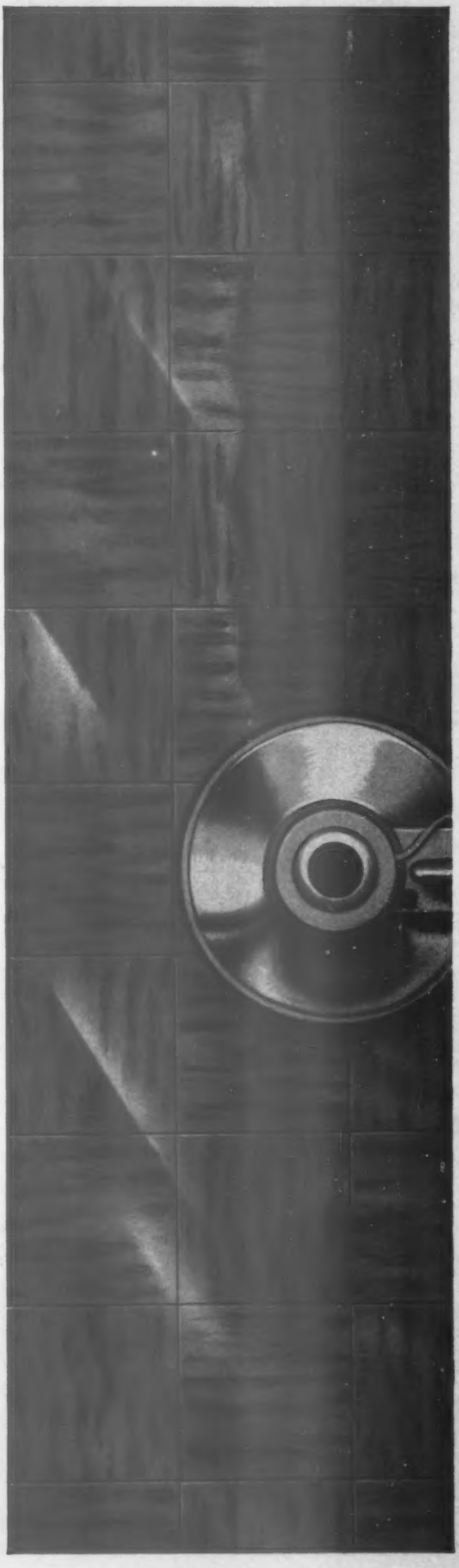
For years people said they wanted a floor finish that wouldn't wear out fast, wouldn't require constant maintenance, and would resist marking. ℂ As a result of this demand, we introduced STEP-AHEAD, a new polymer finish...because we knew a properly formulated polymer product could provide these qualities. ℂ We also knew, however, that none of the widely used commercial polymers possessed exactly the qualities needed. Therefore, our chemists designed and tailored a new polymer specifically for this finish. ℂ By creating our own polymer, we were able to build into Step-Ahead exactly the features most needed in a floor finish: high shine, resistance to rubber marking and scuffing, durability, resistance to dirt pickup, water-resistance and no need to buff. ℂ As a result, Step-Ahead stays good-looking longer than any product we have ever seen. The polymer shield it puts over the floor is so tough, so resistant to scuffing and rubber marking that it lasts weeks without more care than an occasional damp mopping. ℂ **RESULT:** Customer reports prove savings result from the use of Step-Ahead—as much as 60% saved in floor maintenance costs.



A NEW POLYMER FINISH THAT PERMITS "TOUCH-UP BUFFING"

New Super SHUR-TRED is being announced for the first time in this Report. ¶ Chemically, Super Shur-Tred is a "cousin" of Step-Ahead. The same unique polymer is used in both products. Like Step-Ahead, Super Shur-Tred is a "minimum-care" finish —designed from the start with maintenance cost savings in mind. ¶ The introduction of Super Shur-Tred at this time is a direct result of requests from customers who tried Step-Ahead . . . liked its work-saving features . . . but preferred a more "restorable" product—one that could be kept good-looking with simple touch-up buffing. ¶ Super Shur-Tred combines restorability with all the other major virtues of polymer finishes. ¶ **RESULT:** No other product especially designed for safety looks as good, walks as well, and saves the user so much money.





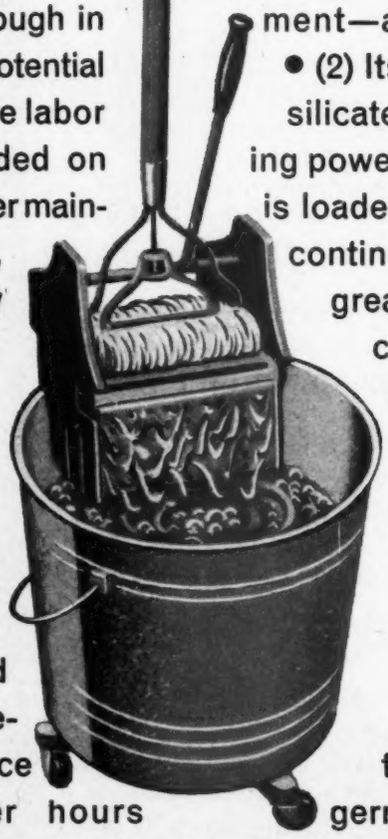
Special Report

JOHNSON'S WAX 1960

AN ALL-SURFACE CLEANER THAT KEEPS ON CLEANING

even after the solution gets dirty

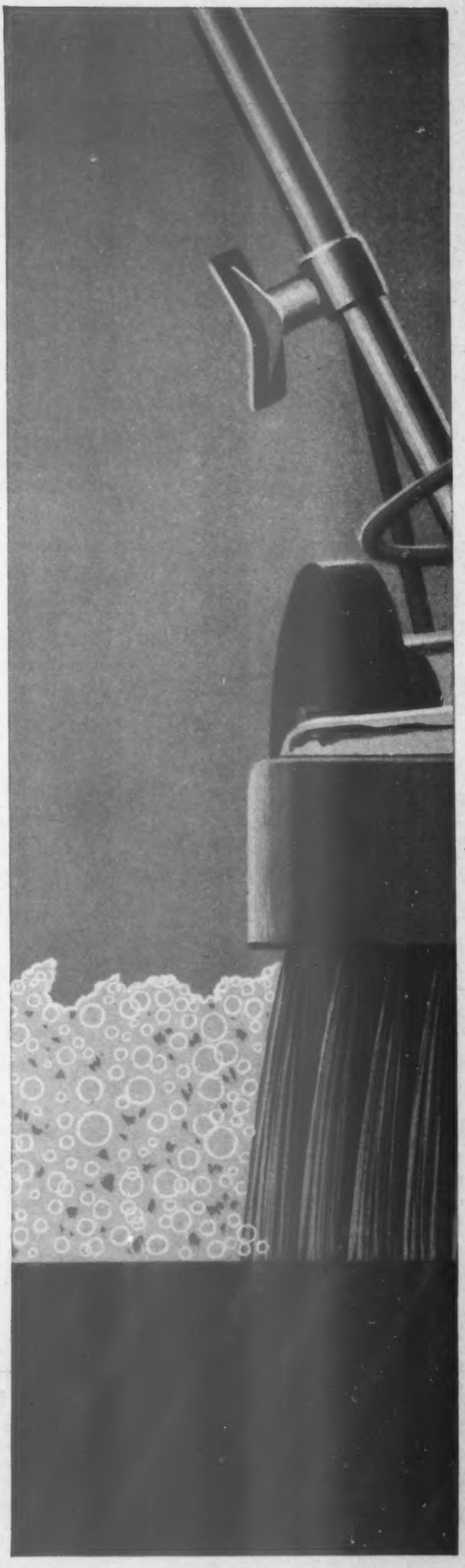
Our new FORWARD Cleaner represents a major breakthrough in an area where cost-saving potential is greatest: More time, more labor and more money is expended on cleaning jobs than on any other maintenance activity. ¶ Until now, all cleaners—no matter how good they were when first poured into a bucket—started to lose cleaning power as soon as you put a dirty sponge or mop in them. Dirt deposited in the cleaning bucket quickly neutralized the solution and it stopped cleaning effectively, forced more trips to replace the solution and longer hours scrubbing while the job was being done. ¶ The Forward formulation as developed in our laboratories meets this problem in two ways: • (1) It is more powerful than so-called "neutral" cleaners. This power, however, is so controlled that it is as safe to use as the neutral cleaners on floors, walls, woodwork, equipment—all washable surfaces. • (2) Its power is buffered with silicates so it keeps its cleaning power even after the solution is loaded with dirt. Therefore it continues to cut through grit, grease and dirt when other cleaners have long been helpless. ¶ An added value in Forward is that it is an effective sanitizer. This is especially important in any public building where regular sanitization can decrease the danger of spreading germs in crowds. ¶ **RESULT:** More of your cleaning time is spent productively—less wasted—because Forward gives you all the cleaning power you pay for.

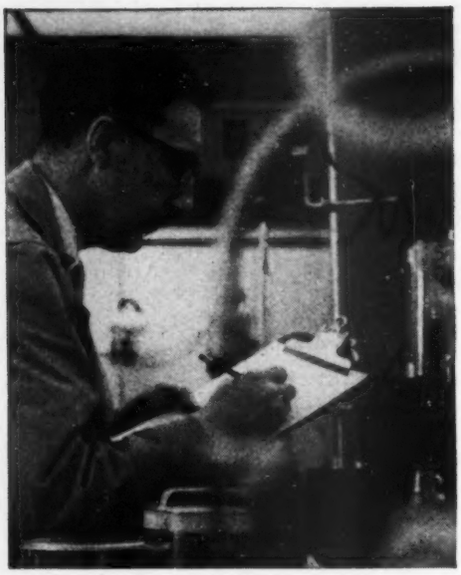


A WAX-REMOVING PRODUCT THAT PREPARES FLOORS

to get the best out of any finish

WAX-STRIP is included in this Report not so much because of the latest improvements in it—but primarily because a quality, modern wax remover is needed more than ever to get maximum performance from today's polymer floor finishes. ¶ Even the best all-purpose cleaners do not strip a floor thoroughly. As a result, even the finest finishes streak, spot, flake or powder when applied on an improperly prepared floor. ¶ Most all-purpose cleaners—even when they penetrate and break up a wax film—are likely to re-deposit broken-up wax particles on the floor. They don't hold them in suspension long enough for removal. ¶ Wax-Strip is effective because our development men have built into it a two-fold action: First, it penetrates . . . gets down under the old wax film and breaks it up. Second, it holds the broken-up wax in long-lasting suspension . . . floats it until all the loosened film can be picked up. ¶ **RESULT:** Floors are prepared in one fast stripping operation so that any floor finish delivers its best performance.





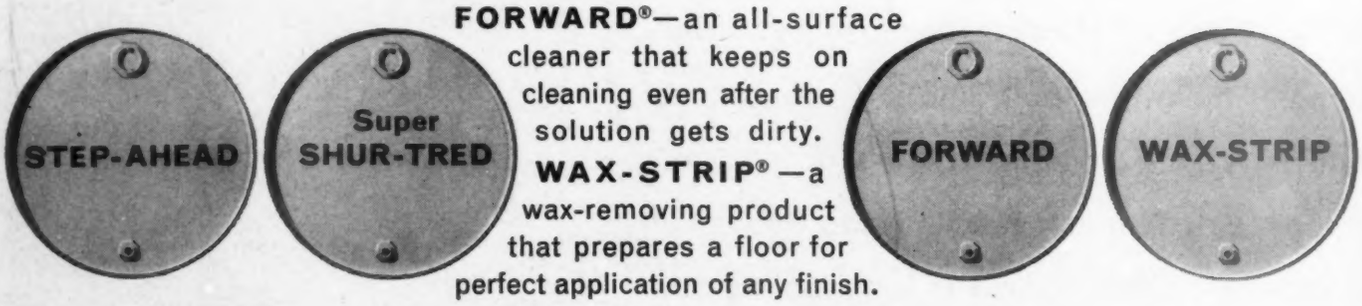
The 4 products described on the preceding pages were carefully developed for solving today's modern maintenance problems. They are the result of years of research and experience in the maintenance field. Because they are the best, they save work—and that means you save money.

STEP-AHEAD®—a floor finish that looks better, lasts longer, requires less work to maintain.

Super SHUR-TRED®—a polymer finish that permits "touch-up buffing."

FORWARD®—an all-surface cleaner that keeps on cleaning even after the solution gets dirty.

WAX-STRIP®—a wax-removing product that prepares a floor for perfect application of any finish.



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LET US SEND YOU THIS PROFESSIONAL
BUILDING MAINTENANCE MANUAL

This 28-page reference book includes these chapters: Floor Type Chart; Cleaning the Floor; Finishing the Floor; Use of Special Finishes; Day-to-Day Maintenance; General Cleaning; Care of Equipment; Stain Removal; and many others. To receive your copy, simply write: Building Maintenance Manual, S. C. Johnson & Son, Inc., Box SM-3, Racine, Wisconsin.

(Circle number 743 for more information)

THINGS YOUR PUBLIC OUGHT TO KNOW

Basic information that schoolmen can use as a part of a community education program

How to live with double sessions

A study of parents' attitudes toward double sessions that sheds light on how to cope with the problem arising from half-day schools.

■ ■ ■ When a school is forced to go on double sessions, both the amount and quality of education provided its students are lessened. (*See "What price double sessions," SM, Nov., '59, p. 15*). Most schoolmen agree on this point. What isn't so clear is how they can best minimize the detrimental effects of half-day schools when the need for them arises.

In an attempt to pin-point the specific problems arising from two-a-day sessions, Ervin Nephew, director of education, Richland School District, Shafter, Cal., conducted a study of what parents thought of the situation then prevailing in two school districts in the San Francisco Bay area. He quizzed parents in the Ravenswood Elementary District, East Palo Alto, Cal., and the Redwood City School System, both rapidly-growing residential suburbs of San Francisco.

At the time of the study, grades one through six in one school in the Ravenswood District were all on double sessions—and some of the grades had been on double sessions for six years. In another school—in the Redwood City System—only grades one through three were doubled up. Today, six years later, the latter school still has students in grades one and two attending for half-day periods—despite the excellent cooperation of the voters on bond issues to support the district's hard-pressed building program.

How have school authorities in both districts been able to cope for so long with such conditions? Most important, they have been accurately informed about parents' feelings toward double sessions through such studies as Mr. Nephew's. As a result, they have been able to take corrective action by enlisting parental support to overcome the inadequacies forced upon their schools.

Obviously, Mr. Nephew did not conduct his survey to determine the fact that children necessarily must receive less instruction when they are in school for a shorter period of time. But how does this shortened day affect the child? How does it affect his family life? What is it that concerns parents most? What is their general attitude toward half-day sessions. The answers should prove valuable to all schoolmen.

Here is what he discovered.

No let-up

Many parents did not object as much to the shorter total time spent in school as to the fact that the entire day is spent without a break of the type given by the noon hour during normal sessions. Because there is no break, school becomes too concentrated for most children to absorb:

"I feel that the subjects are crowded together too much, and not allowing for diversion in between time. At home there are tasks for the child to do, and if required to do them in succession, rather than at different periods of the day, these tasks would become real work, done quickly but not well. On the other hand, if these same tasks are divided during the day, I believe the child receives a feeling of accomplishment in doing them as her day has been sufficiently diversified to make them interesting. The same applies to school. If one subject is taught directly after another without sufficient time for relaxation of the mind and body, these subjects become boring, and when interest is lost, proper understanding is, too, and consequently school is very much disliked. I feel that with full sessions there would be enough variety to make school a very attractive institution."

Suggestion: Several things can be done by the school to lessen this concentration and provide some substitutes for the noon break period. Teachers can often arrange their daily schedules so that music periods serve as one period of relaxation. Activities such as social studies projects, folk dancing and art construction can be used as part of the daily program to provide some measure of relief.

Arranging the various subjects in larger blocks of time and on alternating days will tend to lessen the impression of concentration.

The children's attention will then be directed toward fewer types, kinds, or aspects of problems each day.

Too much homework

Parents feel inadequate in coping with the additional amount of homework that usually accompanies half-day sessions:

"Parents aren't, in general, used

ClarkeAmatic

SELF-PROPELLED FLOOR MAINTAINER

DOES 16 HOUR CLEANING JOB IN 45 MINUTES

Before placing the Clarke-A-matic self-propelled floor maintainer on the job, four men worked four hours to clean the 7214 sq. ft. floor area in a large Atlanta Building. The floor was cleaned only once a week – a total of 16 hours labor time.

Today, the floor is cleaned in 45 minutes by *one* man with a Clarke-A-matic, reducing labor time 15 hours and 15 minutes each time the floor is cleaned – a labor saving of 95 percent.

In addition, a better housekeeping job is accomplished and floors are safer, more sanitary. The floor is now cleaned *three times a week*. These three cleanings, requiring 45 minutes each, total only 2¼ hours – saving 13¾ hours each week.

Put briefly, Clarke-A-matic does three times the cleaning for less than one-seventh the former cost.

And one more thing: Clarke A-matic gets floors clean. Instead of just moving dirt around with a mop, it scrubs, picks up and dries – all in one pass – and leaves floors sparkling. And, the Clarke-A-matic is self-propelled – ideal for cleaning large floor areas in any institutional, commercial or industrial building.

All these Clarke-A-matic advantages and savings can be yours.

For smaller floor areas, too, and other cleaning requirements, there's a Clarke machine – from maintainers that scrub, wax and polish to wet-dry vacuum cleaners that clean everything from floor to ceiling – that'll do the job right and slash your maintainance costs. Your Clarke distributor will prove it.

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to the idea of having part of the teaching job, which you have to carry on to a certain extent when children are on double sessions. Children aren't always as cooperative with their own parents as with their teachers and it is difficult for the housewife with a family to keep the children interested in something constructive."

Suggestion: Continuous parent-teacher conferences in which the teacher assumes the role of adult educator so that parents can learn to help their children develop their own abilities rather than merely do things for them. Educators cannot assume that parents know how to help children with school problems. They need kindly guidance and direction.

Lack of social contact

Children need the noon hour period for association with other children. This is also a very important period to the teacher in becoming better acquainted with the child, with his likes, dislikes, attitudes, general behavior patterns:

"Little or no playtime with children."
"The child misses the breaks for the lunch period at school for play and feels school is longer and less interesting."

Suggestion: Would it be feasible to consider employing an extra or "roving" teacher to handle free play activities while other children are in the classrooms?

Emotionally disturbing

The concentrated and rushed educational program has its effects on the emotional and physical behavior of the child:

"During holidays or summer vacations she is a different child. No nail biting, hand wringing, or similar symptoms that the doctor calls nervousness. Every indication is that she is being rushed."
"Sense of pressure during school hours. Too concentrated. Thanks to a good calm teacher the results of this tension are not as noticeable as they might be."
"Tired. Much too long a time to expect children to concentrate and maintain good study habits."
"Tired, tense, frustrated."

continued on page 36

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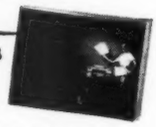

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"She has become much more nervous and excited, and we have noticed a loss of appetite."

One mother stated it this way: *"Put yourself in their situation. How would you feel?"*

Suggestion: Some mothers provide relief of this tension that builds up during the rushed morning:

"I read to her [after she tells of morning's doings]. Child hungry but only for small amount. Breakfast at 6:30, so good lunch essential. Reading keeps mind off weariness, permits greater intake of food without nagging."

General disinterest

Discouragement and undesirable attitudes toward school by the children are also apparent in these responses:

"He is very nervous and rather than take the teacher's time if he doesn't understand something exactly, he will let it go as wrong."
"She is tired when she arises, hungry when she gets home, and takes very little interest. For the first time she seems to resent going to school."
"An increasing lack of interest in school work."
"General insecurity, loss of individual attention, discouragement in not having enough time."

No extra attention

Children lose out on the many little things that a good teacher provides in a complete and balanced program:

"My child loses out in little ways—extra art, story telling, more free time—in class."
"As a child who is behind in his school work, I feel he could use more individual attention which the full session might give him."
"Little or no playtime with children, no public programs, just the three R's."

Compression of content

In our national concern to raise the educational standards of our schools, these comments emphasize the impossibility of even maintaining present standards when children are short-changed on their time in school:

"Shortened academic courses

continued on page 39

Follet Publishing Company's "Beginning-to-Read" series features better-looking, better-wearing bindings of new Du Pont vinyl "PX" cloth.

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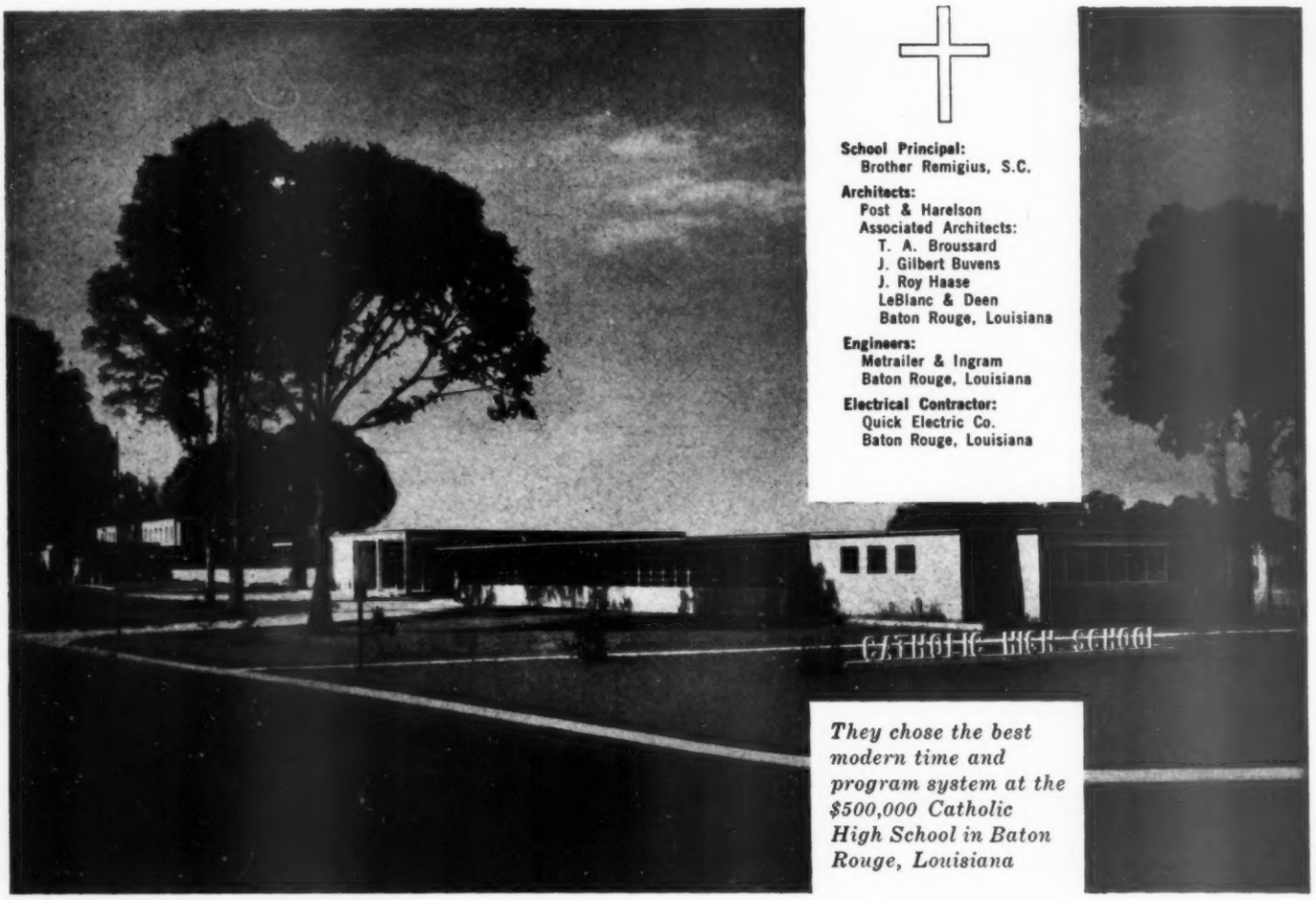

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Associated Architects:
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In Catholic High School . . .

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- Program Unit, capable of 1440 signals daily on each circuit, immediately resets following power interruption.
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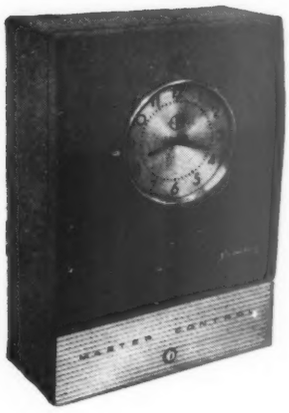

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to meet limited time resulting in poor foundations for higher classes to follow."

"Children seem to feel a sense of defeatism—'Oh, well, we can't be expected to excel—we're only half-session kids.'"

"The morning is dissipated time that could be utilized to better advantage in the classroom. What little gainful time is now used in the mornings could be used at another time of day. My personal reaction is that the child on half-day schedules is being ill-prepared for high school or college. Under the circumstances, the child is not learning to study but is being given knowledge in capsule form."

Disruption of home routines

Undoubtedly, one of the biggest problems of parents is the handling of the child's extra time at home and the disrupted meal schedules because children in different grades attend school at various times. Parents of the children attending afternoon sessions were very concerned about how to help the child wisely use his time, and yet not be completely tired out from strenuous play before starting school at noon:

"I have a boy almost 10 for whom I've worked out a fairly adequate semi-supervised program of activities. I feel my boy would be better off carrying on these activities in school—or elsewhere—in a supervised group as he needs to learn to work in and with a group. However, I have seen too many afternoon students lie in bed until 10 or 11 o'clock, or spend the morning reading comic books, and I feel that any activity with an aim or a purpose is better than nothing at all."

From the parents of a child in grade six came this comment:

"He sleeps a little later than usual—which means not having breakfast with the family—then he works about the house helping with household chores: emptying wastebaskets and garbage, vacuuming, making his bed and cleaning his room, and other varied tasks about the yard. Then a hurried lunch at 11:30 with his sister—who also has double sessions—and then catches a bus at 12 o'clock (which means not having lunch with the family). His two brothers come in at 11:30 and 12:00 and they have a separate lunch. All in all the whole thing is hurry and confusion from 7:30 a. m. until 5:00 p.m. [In this family there are children going to school at four different times during the day. Altogether there are five children in the family]."

Suggestion: Parents' reactions differ as to how they can best handle these problems. From a parent of a grade two child:

"I entertain her for I do not want her wearing herself out before she reaches school by playing hard all morning. She does regular chores with me and we write, color, read, and anything that appeals to a child who dearly loves school and gets a great deal out of it. Attitude is half the battle."

From grade three:

"During the half-day when he should be in school, he wanders around the house with nothing constructive to do, just getting into mischief. He has no playmates. I try to provide him with games and books but I can't spend every day playing with him or acting as a companion. I am not trained in directing recreation for children and often I am at a loss as to what to provide to keep him occupied. He now does a great deal of day dreaming and he plays and talks with his toy teddy bear as though it were a living person. When he was on afternoon session he'd go to school tired after a morning around the house. He'd invariably disappear just when it was time for him to get ready to go to school at noon and I'd have to chase all around the neighborhood to find him. When he was in morning sessions, he had the long, lonely afternoon."

Then there is TV

Television, to view or not to view, and how long, also creates a problem:

"My child has nothing else to do so he watches television all afternoon. I know he shouldn't watch for so long, but I just don't know what else to do with him."

Suggestion: Selection of suitable programs, as evidenced by many parents, is an area where combined

continued on page 43

New Way to Stop Faucet Leaks!

★ 9-in-10 washers are fastened with TOO LONG or SHORT SCREWS thus loosen and destroy themselves. Leaks quickly follow!

34 YEARS OF RESEARCH REVEALS NEW SOLUTION

★ New, patented 'Sexauer' SELF-LOCK screws have imbedded expanding NYLON PLUG. They lock at required depth AUTOMATICALLY, hold washers firmly! Made of MONEL, they are rustproof, non-corroding. Heads can't twist off. Screw slots can't distort.

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★ Faucet leaks repaired with 'Sexauer' EASY-TITE washers and SELF-LOCK screws outlast ordinary repairs "6-to-1"!

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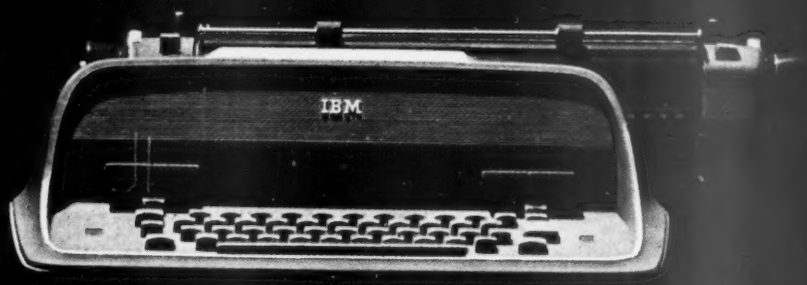
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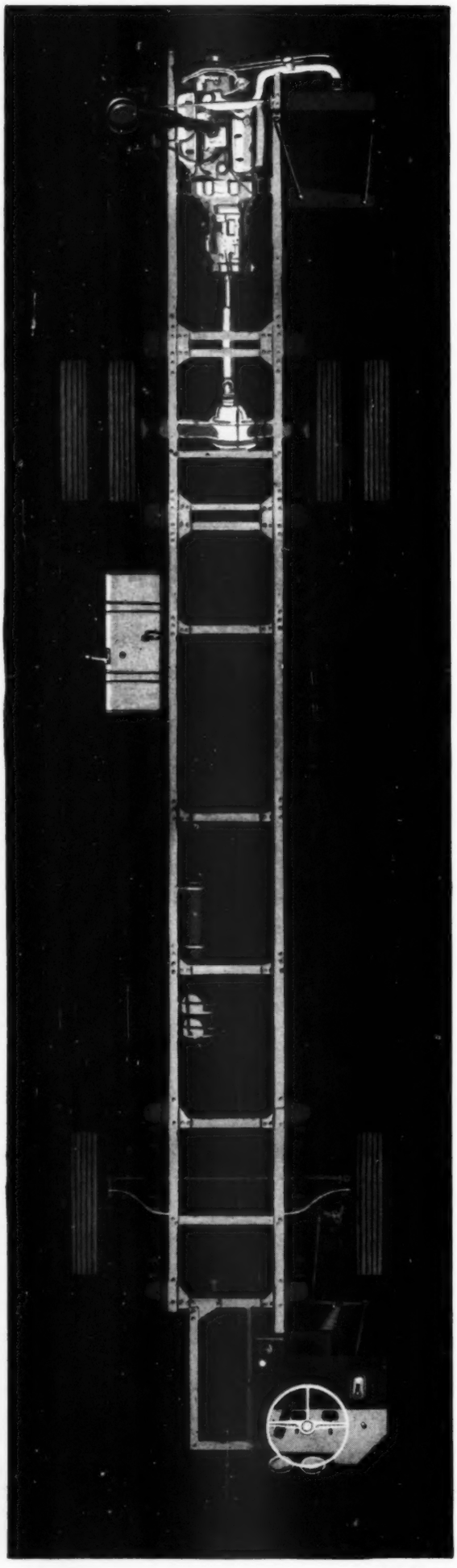
Its beauty is just a bonus



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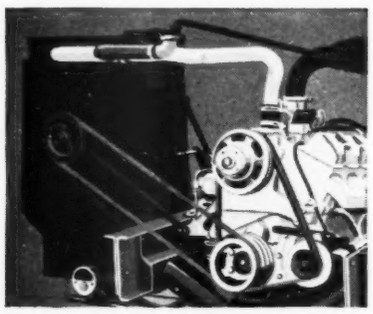
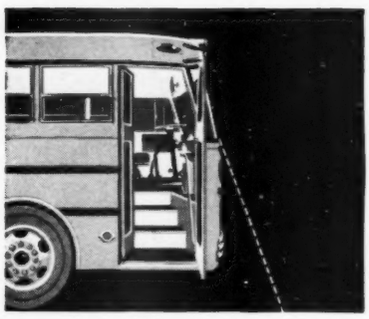


New GMC V-6 engine gives you 3 times longer life expectancy! Located in the rear, you get quieter operation, easier servicing, eliminate driveline under passengers, reduce fire hazard and do away with the possibility of dangerous exhaust fumes in the body.



Notice the improved safety vision... better than any conventional-type bus. Driver has more room and pupils can get in and out more quickly and easily with no front engine obstruction. See the new, lower, safer GMC 3-step design.

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efforts of the school and PTA might help the child develop standards for selection.

There are some good points

There is a lot that parents will and can do for their children to promote better use of their time if the school, or the school and the PTA, work with them.

"My 11-year-old has an organized group which meets at the "Y". They meet from nine to 11 and have a paid leader. They operate as a club with a business meeting once a week where they make rules and decide what they want to do. The fee is $8 per month per boy. The leader was selected jointly by the parents and the "Y" and is a graduate student at Stanford. Their program is varied. Some of the activities are tennis, basketball, football, swimming, movies, body building, tether ball, badminton and checkers."

Although these responses were definitely in the minority, some parents were using this extra time at home to excellent advantage. Several parents mentioned that their children could take extra dancing lessons or music lessons. Some groups had extended their Cub Scout groups and similar activities.

Some parents took advantage of the opportunity to take the children shopping with them. Possibly the most beneficial use, from an educational standpoint, of this additional time, is this one:

"Can go on family expeditions."

With the great number of mothers who can drive cars, this presents an opportunity for the school, the PTA and parents to work and plan together. Field trips or family excursions can supplement the curriculum of the shortened day at school, can fit right into the unit the child is studying and, in some measure, can add the fun or activity part which the teacher does not have time to provide.

Half-day sessions are not a credit to our educational system. But if crowded conditions necessitate them, the extra time the child has at home can be profitably spent if parents, school, PTA and community organizations work together to plan it properly. **End**

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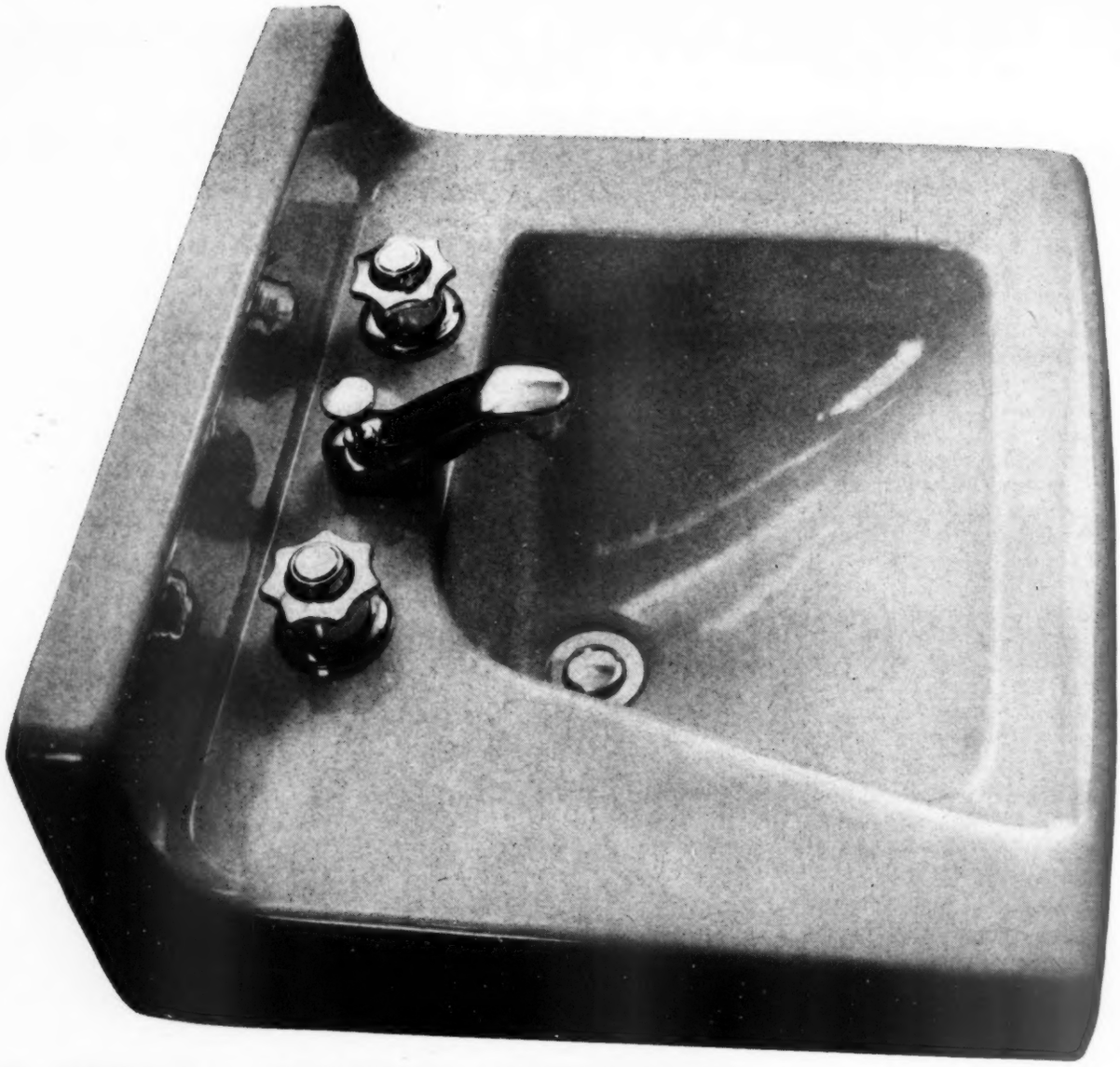

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PLUMBING AND HEATING DIVISION

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NEWS OF THE SCHOOLS

A digest of current happenings in public education

Eleven Michigan districts launch joint food buying

A cooperative food buying plan worked out by 11 districts in Michigan's Jackson County is expected to result in considerable savings to the schools involved.

Under the plan, given a three-month tryout starting in January, all the schools involved pooled their orders for 45 nonperishable items, including canned fruits, vegetables, soups, fish and various condiments such as catsup, mustard, salad dressing and relish.

A food-ordering and evaluating committee, made up of four superintendents working with a group of school lunch directors, tabulated the needs of the various districts and wrote the specifications for quality. Invitations to bid on supplying the goods were sent to more than 20 food distributors. The bids specified delivery to each of the 11 individual districts once each month during the trial period.

Deputy Superintendent of County Schools Rex Wedel, who initiated the program, admitted that he did not know exactly how much the districts would save by joint ordering, but said he hoped savings would amount to about $2,500 in the first three-month period.

New York boards get state cost-of-education index

School boards in New York State are being helped in planning their current budgets by a cost-of-education index, devised by the state department of education.

The index, just released, shows that it costs $182 today to buy what could be purchased for $100 in 1947-49.

The result of two years of research, the index is the first instrument made available to the schools for measuring changes in the prices of goods and services used in education.

Expenditures by the more than 900 school districts in the state—including salaries for teachers, supervisors, administrators and other employees, instructional and maintenance supplies and utilities—were used in calculating the index.

The average of 1947-49 school costs, expressed as 100, are used as the base for the index. It went up to 169.5 in 1958 and reached 182 this year.

Traffic violators may pay for school driver training

A compulsory high school driver training program, endorsed by the Nevada State Legislative Commission, may be supported by a special assessment on traffic law violators.

A bill to make driver training mandatory was introduced at the 1959 session but failed to pass because Nevada's small counties objected to the additional financial burden it would impose on their school systems.

Legislative Counsel J. E. Springmeyer suggested paying the tab by assessing traffic law violators. Under the plan, a driver fined $100 would pay an additional $10 for his misdeed through special assessment, described as a "sales tax on lawbreaks."

Springmeyer predicted the state's record toll of traffic fatalities would never again move downward until people are trained to be careful with automobiles.

"It's too late to teach us oldtimers to be careful," he said. "We have to start with our children."

Teacher foiled by Ohio book burning

Book burning didn't end in America with the Salem witch trials. An experiment in classroom democracy in the town of Springboro, Ohio, has brought the bonfires back onto the scene and

Too good to miss . . .

Overjoyed . . . It happened recently in Bon Air, Va., when a small boy watched election board officials set up ballot boxes in his school. When the boy asked what they were for, it was explained that the people were voting that day. "Oh," said the overjoyed young man, "are they electing new teachers?"

Over chewed . . . Teachers in Hartford, Conn., are worried over chewing. According to the student paper at Conard High School, "three out of four students are secretly engaged in the art of gum chewing, life-saver sucking or some other jaw-breaking process during school hours." And don't believe those ads about gum helping you relax. It may help the chewer, but even the student paper admits "the constant movement of jaws increases the teacher's tension."

Overdone . . . Tense teachers may be inclined to make use of paddles in school, but sometimes we think that's being overdone. Take the case of Beech Bottom, W. Va. Somebody broke into the elementary school there, took $10 in cash and splattered eggs on the blackboard. Perhaps a paddle should have been used on the culprit, but he turned the tables instead. Seems he used a good, solid, old-fashioned teacher's paddle to break into the building.

Overlooked . . . A Trumble, Conn., driver overlooked and passed a stopped school bus and was arrested and fined by police for his offense. The driver's only excuse was that he was busy at the time—piloting his own school bus through heavy traffic.

Look what they're doing . . .

Girls hold fashion show to be best-suited for gym classes

■ For many years the Bridgeport, Conn., schools have operated on an autonomous basis in the selection of girls' gymsuits. Some schools used street clothes. Others adopted a single suit that all girls in their school had to wear, but that had nothing to do with those worn in other schools. Still others simply demanded that the girls purchase a gymsuit, but left the question of style and color up to each individual.

When the physical education department recently decided to standardize the uniform for all 20 schools in the system, the question of which style and color to use was left up to the girls themselves.

Physical Education Director Joseph V. Burns, aware of the value of uniform gymsuits to the schools and to the girls, contacted all possible manufacturers, offering them the opportunity to present their line of suits. Burns did an initial screening to insure that all suits shown met minimum standards of durability, style and modesty.

Manufacturers were then given an invitation to show their wares at style shows in the various school gyms. Students served to model the suits and the girls voted for their favorites after each show. The final selection of a uniform gymsuit for the system was made on the basis of the girls' votes and the suit chosen became standard for every school.

As a result of the decision to let the girls pick their own suits, the schools have found a much greater acceptance and willingness to wear them than is often the case. The girls take pride in the suits and in themselves, and participation in the gym program has improved immeasurably.

Special features of this gymsuit, modeled by student, are pointed out by representative of E. R. Moore Co., one of manufacturer's exhibiting at show.

continued from page 45

resulted in the burning of books and an attack by the town's ministers on a best-selling novel.

It all started when Fred Sennet, who teaches English in the high school, let his junior students choose books at will from a publisher's list for book reports.

Nearly 20 ordered "Ten North Frederick," the 1955 best seller by John O'Hara. The book describes the frustrations and blasted hopes of a Pennsylvania millionaire. Despite some "sensational" passages, the book won general critical acclaim.

When the students brought their selections home, some parents became upset and contacted local ministers and the school board members. The ministers attacked the book from their pulpits the following Sunday and the principal ordered all copies returned.

Some students brought the unpopular novel back, but the majority reported that parents had taken matters in their own hands and burned the "harmful" novel. The principal allowed as how Teacher Sennet had made a mistake by giving students a free choice of books, but said no disciplinary action would be taken.

Athletes don't drop out, Washington survey shows

High school athletes are less likely to drop out of school than their physically less talented classmates, a survey of 11 Washington, D.C., schools shows. The survey was conducted by Assistant Superintendent John D. Koontz.

During the 1958-59 school year, 12% of the high school boys enrolled left school. Among athletes, the dropout rate was cut to 3%.

And what is the academic value of staying in school to an athlete? Said Coach David Brown of Springarn High School: "I can put a book in the hands of a boy who has never read a book before. It may be 'Throwing Touchdown Passes' by Sid Luckman or 'How I Became a Dodger' by Jackie Robinson, but the boy's still learning how to read."

County, school dispute may block buildings

A dispute between the school board and county commission in Dade County, Fla., may bring a halt to all school building in the area. The disagreement revolves around responsi-

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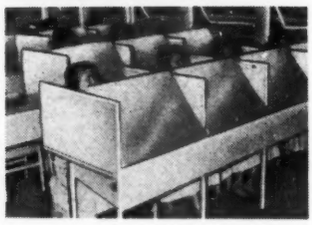

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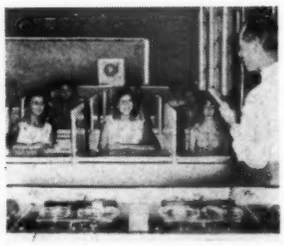

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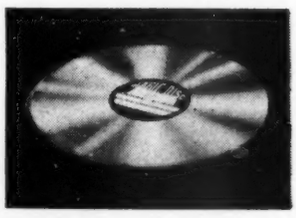

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bility for paving streets and sidewalks and bringing in utilities for new school buildings.

The school board recently presented the county with a bill for $3,565 to cover the cost of street paving around one new building. The county rejected the bill. County Manager O. W. Campbell stating that this was the school board's responsibility.

With the bill still unpaid, the county commission was threatening to pass a resolution forcing the school board to post bonds to cover costs of street improvements, before a building permit would be issued. The county attorney has already ruled that this would be a legal maneuver.

Part of the fight stems from county charges that the school board insists on purchasing "landlocked" sites, rather than accepting school sites offered by subdivision developers. Landlocked sites are those that are inaccessible through existing streets.

In answering the county's charges, School Board Member Jesse Yarborough, a former county commissioner, said: "The school board is not in the road-building business. We've got a county government to handle all that —and the money to pay for it is the same taxpayer's dollar, no matter who collects it."

Maybe they'll settle their argument by suggesting that the children and teachers pay for the paving. After all, they're the ones who'll be using the building.

School TV hailed in West; dropped in New Hampshire

How good is classroom television? The jury, it seems, is still out.

From Keene, N. H., comes the report that a two-year experiment with closed-circuit television in the high school will be discontinued at the end of the current academic year.

In recommending that the program be dropped, Principal Harold F. Drew stated: "This program, by national tests, has proven that such a type of instruction is as good (for above average students) as the traditional methods of instruction, but no better. It was not successful as used with the below average students."

On the other side of the nation, 1,200 teachers in the San Francisco area have given an overwhelming vote of confidence to classroom television presented over ETV station KQED.

Teachers who evaluated the yearlong service decided that the chief values of the program were the provision of illustrative materials not other-

wise available; the introduction of new concepts; and the use of outstanding teachers before many classes at one time.

Suspending driver licenses advocated for school truants

A plan to suspend the driver's license of high school truants has been proposed in Salt Lake City, Utah. The program is based on the assumption that a large number of truancy and drop-out cases are accompanied by "an unhealthy interest in automobiles," according to Youth Bureau Commander Phillip E. Brinkerhoff.

Under the program, truants might lose their licenses and driving privileges for a period not to exceed 30 days. The plan would be administered by referees appointed by judges of the juvenile courts. It was recommended that high school principals serve as referees, particularly in heavily populated areas.

A student who dropped out of school with no vocational employment or other training in the offing might also be deprived of his license "until such time as he offers evidence that he is engaged in profitable use of his time."

Such action could be taken only by a judge of the juvenile court and would be invoked only at such times as it became apparent that the student involved had easy access to a car and an "unhealthy" attitude toward driving it.

All drivers' licenses taken in the truancy phase of the program would be held by the court and returned upon the personal appearance of its rightful owner after the expiration of the suspension period.

Student monitoring of classes attacked in Detroit

Students in Detroit schools are monitoring teacherless classes in violation of state laws, it has been charged. The condition is a result of a lack of qualified substitute teachers.

Detroit lists 1,050 persons as qualified substitutes but just 200 of these are available every day. Superintendent Samuel Brownell ordered another 318 fired for "not meeting qualifications" a year ago.

During the recent flu epidemic, more than 150 substitute requests a day were going unanswered. In elementary schools, eighth grade students were being pressed into service, monitoring first grade classes. In high schools, students were divided up, so that most teachers were handling two and three times as many students as usual, or packed into study halls.

Alfred L. Jones, president-elect of the Detroit Education Association, appealed to the board of education to reinstate some of the substitutes who had been fired. He said that 176 were released because they had not taken necessary college credits.

"Many of the 176 were women who had life certificates, dating from the years when only two years of college work were necessary in order to teach," Jones charged. He pointed out that Frank Cody, Detroit's superintendent from 1919 to 1942, held only a two-year life certificate—the same one that has now been ruled not good enough for substitutes.

Paperbacks in high schools expected to boost reading

Four Buffalo, N. Y., high schools are launching an experiment designed to stimulate good reading habits by making paperback books available to all students.

Under a $1,200 grant from the Western New York Federation, the schools are installing stands and racks for display of the books. Each school will manage sales as an individual business unit under the supervision of a parents' group or a student committee under faculty supervision. Book titles will be selected by a school committee with the same care as is taken in the selection of hard-bound library volumes.

"I have a feeling that making good books readily available in inexpensive form will go a long way toward improving reading habits," said Superintendent Joseph Manch in announcing the project.

Continuing evaluation of teachers advocated

A dispute over merit pay for teachers in Washington, D. C., has led Superintendent Carl F. Hansen to come up with a plan for withholding automatic pay increases from teachers who do not receive a satisfactory rating in a continuing review of their work.

Hansen's proposal followed moves by the school board to institute merit pay. The superintendent convinced

continued on page 52

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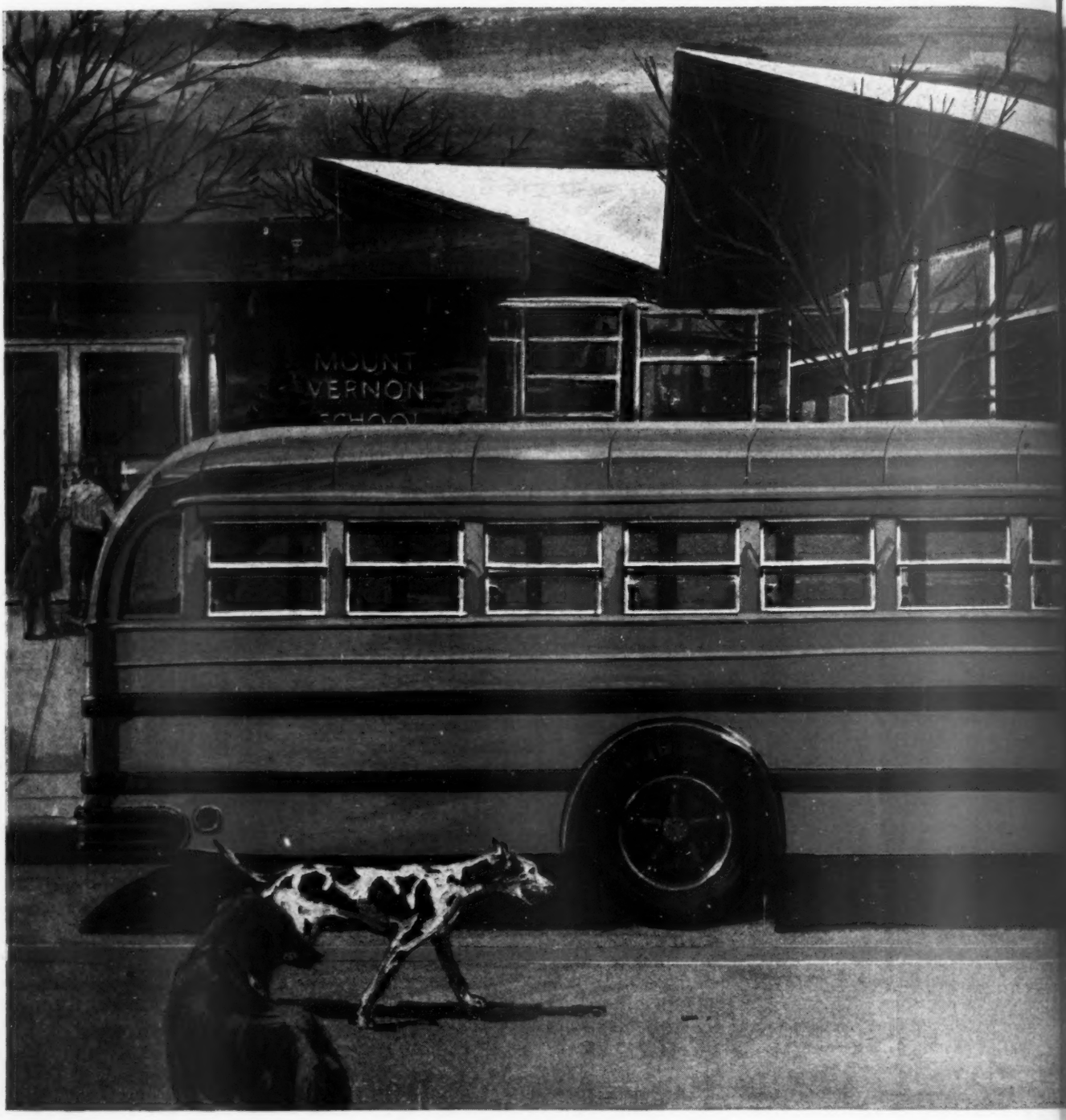

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By every standard Chevrolet is the value leader . . . gives you more for your school transportation dollars

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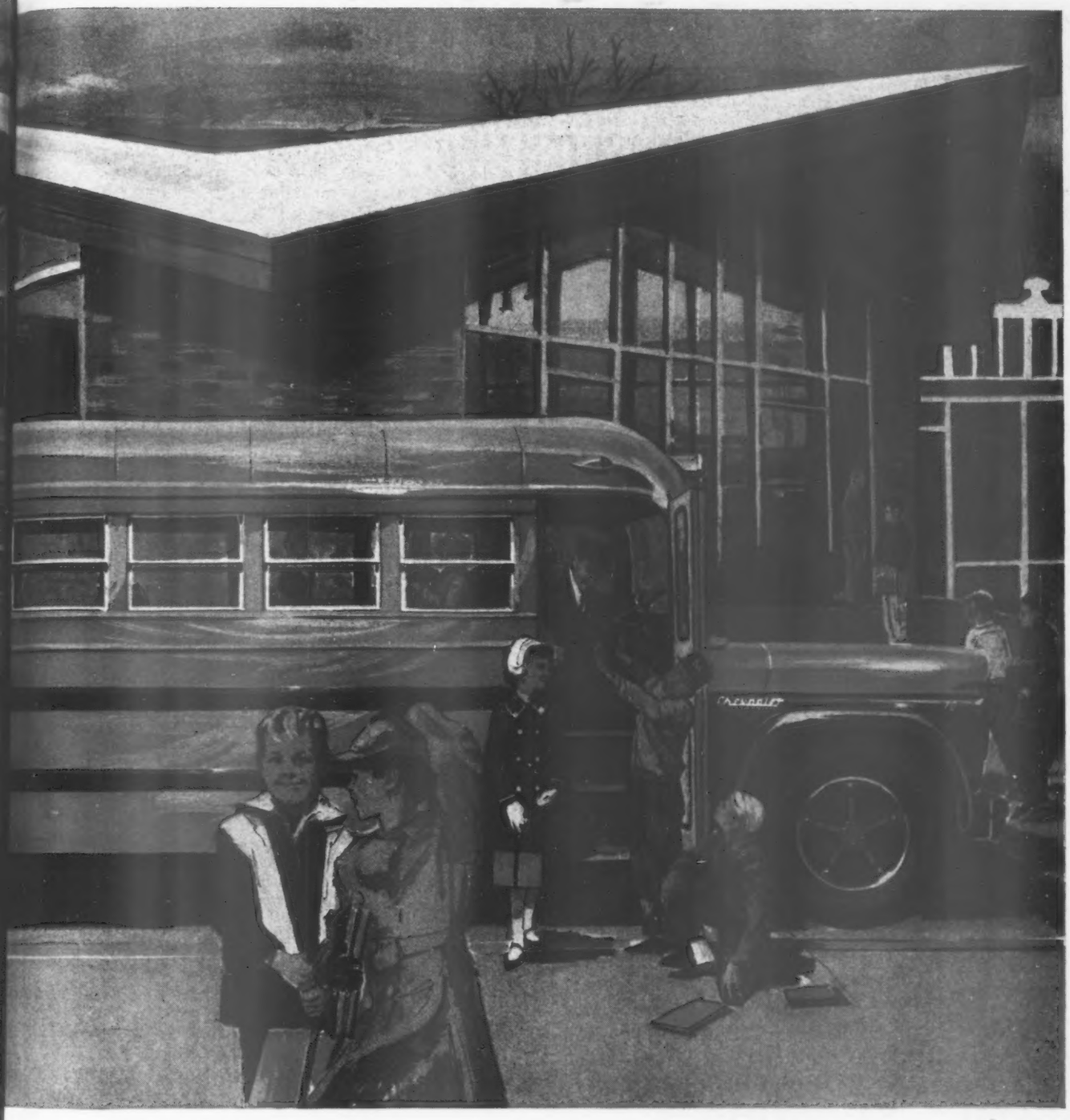
But don't stop there. These '60 Chevrolet school bus chassis have established new standards of safety for



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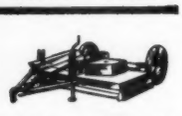
MODEL 61 5 ft. swath



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the board to wait on instituting a merit system so that other plans could be investigated. Teacher organizations in the capital have opposed merit pay plans.

Under Hansen's proposal, all teachers and school officials would be rated each year as satisfactory, unsatisfactory or conditional. An unsatisfactory rating would be cause for dismissal and a conditional rating would hold a teacher at his current pay level. Two successive conditional ratings would lead to dismissal.

Hansen said that to institute such a plan, a set of "evaluative guide lines" for rating teachers would have to be developed by a committee of teacher representatives and administrators. Evaluation would become "a continuing and constant responsibility of those in charge."

The school board has taken the plan under consideration and, if it is approved, will submit it to Congress which ultimately holds the capital's purse strings. Board President Walter N. Tobriner, an outspoken advocate of merit pay, called the plan "a step in the right direction," but he questioned whether the step was big enough.

Portable equipment out of building contracts

Portable school equipment is being eliminated from general school building contracts by the Houston, Tex., Independent School District. Fixed equipment may also be eliminated.

The question arose when some $300,000 in portable equipment was included in three contracts prepared for school board approval. Architects working on the jobs would receive $18,000 in commissions, at their regular fee of 6% for the entire building contract.

Opponents argued that the school district can purchase the equipment directly from the manufacturer at the same price included in the building contracts, without paying a profit to the contractor and a fee to the architect on top of that.

But supporters of the contracts argued that one major function of the architect is to coordinate the over-all design of the school, and that should include fixed and portable equipment used and installed.

"When you lump a number of things into a building contract," Superintendent John W. McFarland told the school board during the discussion, "we benefit in the long run because the contractor is giving us one low-base bid. He is trying to get

the contract, so if the equipment is included he bids low on the equipment also."

A homemaking room table, it was argued, is just as much a part of the specifications as is the door to the homemaking room.

But opponents of including equipment in bids pointed to an example of the purchase of auditorium seats for a new junior high school.

The contractor bid $9,500 for furnishing the seats. They were purchased from the manufacturer for $9,114.24, including freight, installation and also the design for placing the seats in the auditorium. The construction firm made a profit of $385.75 on its bid; and the architect received his contracted 6%. An area representative for the seat manufacturer told a Houston newspaper that the school district could have purchased the seats for the same price.

Closed-circuit system to be used by schools

A franchise for the installation of a closed-circuit television system in Galveston, Tex., is going to result in a year's free television for the city's eight elementary schools.

The Galveston City Commission has granted a tentative franchise to Phonoscope, Inc., to establish a closed-circuit (pay) television system in the city on the condition that it install equipment for the school system free of charge. Starting next fall the schools will be able to use the cables for a year.

At the end of that time, the company will have to obtain a contract with the schools or some other public service outlet, or lose its franchise. This is the first case where a franchise for a closed-circuit system has been let in the United States. Some other cities have had them on a trial basis.

In overruling an objection of Galveston theatre owners that the system was not a public utility, Mayor Herbert Y. Cartwright, Jr., took note of the fact that the system would be used in the schools, asking "Are not the 12,000 children in our public schools a part of the public?"

Qualified engineer helps district staff

Heavy demands put on the staff of the Paoli Area School System, Berwyn, Pa., have led to the employment of a qualified engineer as a full-fledged member of the administrative cabinet.

Paoli's problems began several years ago when district growth, building, teacher recruitment and other matters associated with expansion began to take up an increasing amount of administrative time.

A study of administrative re-organization led to the appointment of three executive assistants to Superintendent J. Maurice Stratton—a director of elementary education, a director of secondary education and a director of facilities.

The first two positions correspond to similar ones found in most large school districts, whether the title involved is assistant superintendent, director of instruction, or any other.

The position of director of facilities is a new one. The general practice is to employ a business manager to oversee the non-teaching areas of administration. In such cases, emphasis is placed on accounting and finance. In Paoli, utilizing the abilities of a director of facilities, the emphasis is placed on control of the district's physical plant.

The director of facilities has charge of new buildings, building mainte-

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nance, transportation and cafeterias. Because of the size of the school plant, and because many of the director's duties center around the design and operation of buildings, it was considered advisable to hire a qualified engineer for the position.

"Many school systems depend upon handymen or expert mechanics serving as building superintendents, working through or under a business manager, to keep the plant in operation," says Superintendent Stratton. "This system works well with small organizations. But as a plant grows and problems multiply, the proper programming of maintenance service, and particularly the development of a preventive maintenance plan by an executive who is an engineer, will result in substantial savings in the long run. In the development of a new plant, the services of a trained and experienced engineer on the administrative staff has proven of incalculable value."

Representative sample

A federally-financed talent survey of a "representative sample" of the nation's youth, has run into a slight snag right in the government's back yard.

Project Talent, sponsored by the Office of Education and being conducted by the University of Pittsburgh, is using standardized tests to get a long-range estimate of America's human resources. A "scientifically selected" sample of 500,000 students in 1,000 schools is being used.

When the list of schools chosen was announced, school authorities in Washington, D. C., noticed that the very unrepresentative Capitol Page School, for Congressional and other pageboys, was the only one chosen from their district.

When they inquired about the selection, they learned that the school, which is operated by the public school system, was chosen from a list of *private* schools, supplied by the Office of Education.

An inquiry at the Office of Education brought word that it was news to them that the school belonged to the public. But a spokesman for the Office did promise that word of the error would be passed along.

Maybe the Office of Education was using the English definition of public and private schools.

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A practical approach to

IN-SERVICE TRAINING

How can your teachers keep abreast of new developments in education? How can you get these improvements into your school's curriculum? Here's a blueprint based on a successful experience of a modest-size district. Cost: the salary of one additional teacher.

■ ■ ■ There is no more misused term in public education than "in-service training." To some it means nothing more than faculty conferences, held informally once a month. To others, it's an administrative fiction tagged to the self-improvement efforts of a faculty or a department that, otherwise, gets no structured help.

But in some districts it's one of the most rewarding—and hopeful—aspects of our national effort to improve our educational product. The Nyack, N. Y., public schools fall into this last group. Without foundation support, with only modest funds, but with intelligent and dedicated administrative guidance, they have developed a program that even a large district could point to with pride.

What is in-service training?

Objective observers generally agree that to be effective, an in-service program must be something more than a casually organized effort on the part of teachers to help themselves. This requires close adherence to the following two major guidelines:

■ **Participation must be voluntary.** You can't order teachers to improve themselves any more than you can demand that unbelievers have faith. You can persuade, cajole, suggest or guide, but you cannot manufacture volunteers—not if you hope to have an effective program.

■ **Recommendations must be taken seriously.** If you are only going through the motions of assigning areas of study to teachers with no thought of trying to put their resulting suggestions into effect, you may as well forget about the benefits that may accrue to your school system. There won't be any. No teacher will take your program seriously if he knows in advance that his conclusions and recommendations will be scrapped.

What can you hope to gain from a well-planned, serious in-service program? The benefits are many, but chief among them are the following:

1. *Improved curriculum.* By making it possible for your teachers to investigate new, unexplored areas and study materials, you get the benefit of their classroom orientation toward subject matter. They are one of your best sources of information about what can or cannot be done in the classroom. As a result, suggested curriculum changes will be studied from the point of view of practicality. Every classroom can really serve as a curriculum laboratory.

2. *Improved morale.* Teachers take pride in their profession and are eager to improve their understanding and ability if given the opportunity. Your program offers them the means to do it.

3. *Improved use of outside materials.* Through the use of experienced

MAC CALMAN

SCHILD

Consultant Raymond Kenyon *(far left)* meets with elementary science committee.

consultants, participants in your program can be kept abreast of the latest available research data and can more readily put it to immediate use where feasible.

4. *Improved use of new teachers.* By speeding the orientation period for teachers new to your district, your in-service program makes them far more valuable, much sooner.

Proved helpful

The Nyack school district has been conducting a carefully structured in-service training program for several years now. School officials feel they have clear-cut proof that the results of the program have been extremely helpful to all the district's teachers and students. Nyack's program is a comprehensive one for a small district, incorporating outside consultants and a variety of workshop study groups in several areas (*see box, page 59, for details*). To get the facts about how its program operates and how it has benefited the schools, SCHOOL MANAGEMENT editors conducted the following tape-recorded interview with K. R. MacCalman, superintendent of schools, and Robert J. Schild, director of research and curriculum. Here are their comments about Nyack's in-service program and how it has benefited the district's schools.

Q ***Mr. MacCalman, what is the primary purpose of an in-service program? How do you justify the work and cost it involves?***

MAC CALMAN: There are several purposes. I can't say any one is most important. One is the orientation of new teachers to the work of our schools. The second is the job of keeping courses within our schools up to date—this matter of continuing, constant re-examination of the school curriculum. The third is the use and application of available research data. In other words, implementation of ideas that research proves to be sound.

Q. Let's consider the first one you mentioned, the training of new teachers. Is this a matter of briefing them on the taboos of your school system? Or is it more a literal improvement of their teaching technique?

MAC CALMAN: It's really both—partly a team operation in which new and old teachers pool their knowledge and skills to develop curriculum materials; partly a means of putting new teachers in touch with the program in effect in their particular schools. I think it is highly important for new teachers to learn to work with older teachers and administrators on school problems. This teamwork approach is vital.

Q. Does a new teacher really have something to contribute to other staff members?

MAC CALMAN: Yes, he can bring in quite a few new ideas. About 50% of our teachers are from out of state. Many of them, with years of experience from which to draw, have made valuable contributions to Nyack's schools. The rapport we have been able to create between older and new teachers has been, I think, mutually beneficial.

SCHILD: Actually, in an effective in-service program, teacher training and curriculum improvement are so closely related that they are almost one and the same thing. When teachers participate in curriculum improvement they are, at the same time, really improving their own backgrounds and instructional methods too.

Q. Don't you have the conventional "new teacher workshop" designed exclusively for new teachers?

MAC CALMAN: Yes, but I prefer to call our early sessions straight orientation rather than workshops. They are two totally different things.

SCHILD: We have a two-day special orientation program in the fall dur-

ing which we sit down with new teachers and go over curriculum and methods. We take them for the usual tour of the school district to acquaint them with our facilities and staff. Some part of these two days is also devoted to strictly routine matters—what they are expected to teach, what equipment is available, what materials they have on hand. But then we follow this up with two days for the entire staff working together on school problems.

Q. What about your inexperienced teachers, fresh from school, who need training in basic teaching methods?

SCHILD: From our point of view, guidance in actual classroom instruction methods is the job of the building principal and some of his more mature staff. A new teacher in our schools is always assigned a "buddy"—a mature person who has been with us for a number of years and can help the new teacher to get past the inevitable initial road blocks. This doesn't really fall under our in-service program since the kind of help such inexperienced teachers need is individual and personal and requires very close contact and observation. It's the kind of help that cannot be given to large groups either—unless, of course, the school system is so large that great numbers of individuals fall into the same classification.

All of our new teachers participate in a special six-session workshop, though. This is conducted each fall by Dr. George Bond, principal of the Campus School of the New York State College at New Paltz, N. Y., who is perhaps one of the best study-habit experts in the country. He works with them on the development of study skills in the classroom.

Q. Could a new teacher conceivably be sitting in on Dr. Bond's group and, at the same time, be in another workshop?

SCHILD: Yes, since this is a rather short term item. We begin in the middle of September and close about the first of November. Our regular workshop sessions don't really get under way until the early part of October and run until shortly after Easter. All of our new teachers from the third through the 12th grade participate in this workshop. Kindergarten, first and second grade teachers are not included because the study skills involved are not applicable at those grade levels.

Q. Do you think the size of the Nyack school district is related to the effectiveness of your program? In other words, is a district ever too small to consider in-service training for its teachers?

SCHILD: I don't think size is a factor at all. We happen to have 179 teachers in our district, but whether we had eight or 800, an in-service program would be invaluable in the study of developing problem areas. The size of the district is unimportant. What might vary, though, is the extent of the in-service program. If you had only one school in your system—say a K-6 elementary —you could still run a vital in-service program, though it wouldn't be as extensive as that of a system with a dozen elementary and a couple of high schools.

Q. In your district—or any district —how do you select the subjects to be handled in your in-service program?

MAC CALMAN: Basically, it's a team selection. We do a lot of conference work and most of our study areas come out of these conferences. These are felt needs that we are trying to fill—felt needs on the part of teachers and administrators.

SCHILD: In May each year we hold a conference of our entire staff—teachers of all subjects on all grade levels. Here we summarize for all our staff members the work that has been done during the past year in our various in-service groups. In this way, teachers on one grade level know what their opposite numbers on another level have accomplished. This, to me, is vital since all teachers are part of the same school system. At this same conference we get teachers' reactions to the work that has been covered during the past year. We ask them, too, for suggestions—what problems they feel exist at their grade levels, in their buildings, or in their subjects that should be attacked during the coming year. We get individual requests from teachers, supervisors and principals. These are all considered together so that we can come up with pertinent subjects for study for that particular year. In other words, *we strive for a mutual detection of problems rather than problem selection by any one individual.*

Q. Does it ever happen that an administrator identifies something which he considers important but which may have been overlooked by the teachers as a group?

MAC CALMAN: It does, and we reserve the right to bring up such observations and then work them out with the staff. But we never manufacture "busy work." Everybody hates that, teachers included. The problems they work on here are of a very practical nature and—here's the vital point—*the material that evolves is put into use in our schools!* If it weren't, I think our program would be dead in no time. Our elementary science workshop, for example, is developing the future curriculum for our elementary schools. The course of study being evolved by our in-service committees will be the backbone of our whole elementary science program in another three years. The same holds true for the results derived from our workshop in other areas. Our teachers are participating in a creative curriculum-building job and have the satisfaction of knowing that the results of their efforts will be put to work in their schools.

SCHILD: What it boils down to is this: You'll get a new program working in the classroom a lot more quickly if the teachers who must put it into effect have also had a hand in planning and developing that program. You can't do it with memos and directives alone.

Q. What about the organization of your workshops? Let's say you've identified a problem and a group of some 30 teachers is going to investigate it. Do you assign an administrative head to direct the initial work?

MAC CALMAN: Mr. Schild acts as director of research and coordinator of all in-service programs. He's the steering head of all our committees and works with the chairmen of the individual groups. A coordinator is essential in a program such as ours but he can't be a teacher—teachers simply haven't the time to spend on a job like this.

Q You mentioned research earlier as one purpose of your program. Do you mean research your staff conducts, or review of research conducted by others?

MAC CALMAN: In schools—as in industry, management and the professions—we are faced with a del-

". . . we strive for a mutual detection of problems . . ."

SCHILD

Nyack Public Schools in-service teacher training program

The in-service program in Nyack, N. Y., consists of eight separate study groups, each of which has been approved by the state department of education. Participating teachers are granted two points of credit toward extension of certification and toward salary. Though the program is a voluntary one, 80% of Nyack's teachers participate in the following study groups:

Advanced English Workshop

Participants: Seven teachers, department head, consultant.
Consultant: Dr. John Christie, Vassar College.
Purpose: Led by Dr. Christie, workshop is designed to review and revise advanced English curriculum so that it coincides with the needs of those colleges that Nyack's youngsters plan to attend.

Junior High Curriculum Workshop

Participants: Five junior high English teachers, department head and principal.
Purpose: To differentiate among curriculums for advanced, regular and slow learner English sections. This study group was set up at the request of teachers desiring to work out a means of making groupings meaningful by varying the program of each.

Citizenship Education Curriculum Study Group

Participants: Fourteen teachers (grades seven through 12) and building principals.
Purpose: To create variables for the advanced and slow sections so that grouping would be more meaningful within the program.

Elementary Curriculum Workshop

Participants: 30 teachers (fifth, sixth and seventh grades) and director of elementary education.
Purpose: To more closely integrate the programs of upper elementary school and junior high; to close the gap between building programs by increasing the understanding of the teachers involved about the work being covered in other buildings.

Child Development Program

Participants: 35 elementary teachers and supervisors.
Consultant: Dr. Miriam Goldberg, Columbia University.
Purpose: To study the normal, growing elementary school child, to get a clearer view of what he is through a series of case studies demonstrating the different factors contributing to the child's development.

Mathematics Workshop

Participants: 10 math teachers (junior and senior high) and building principals.
Consultant: Dr. Robert Cleary, Educational Testing Service.
Purpose: To develop a mathematics curriculum in keeping with the new concepts and methods in mathematics.

Modern Language Curriculum Workshop

Participants: Six modern language teachers.
Purpose: To review language laboratory programs to see if they would work in Nyack's schools and whether they would be valuable in the curriculum.

Elementary Science Workshop

Participants: The same group of elementary teachers has been involved in this study for several years. Last year's study group functions as this year's steering committee; this year's functioning group is made up on a grade level basis.
Consultant: Dr. Raymond Kenyon, State University, New Paltz, N. Y.
Purpose: To assemble and experiment with materials for a new curriculum to elementary science; to interpret results through reports back to the whole elementary staff; to create a syllabus for the teaching of science in the elementary grades.

"You'll get a new program working in the classroom a lot more quickly if your teachers have had a hand in planning and developing it."

SCHILD

uge of study results, experiences of other schools, which is no good to us until it can be whipped into usable shape. A few years ago we began an experimental program in the utilization of research in education. We take a look at what is available from outside, then experiment with it internally to see if it will work in our schools. Through our in-service program, we try to apply these available ideas to our own local situation.

Q. Let's become more specific in terms of one of your programs. Advanced English workshop is a good example. How do they work?

MAC CALMAN: Our advanced English workshop is a good example. This grew out of a request from our English department. The members were worried about our ability grouping program. We broke down our language arts program at the secondary and junior high level into four ability groups—an "AD" or advanced section; an "A" section; a "B" section which is still our standard college program; and a "C" section which is a career or vocational section. But separating our students into ability groups would be meaningless unless the subject matter at each level were differentiated, too. We have been placing a much higher demand on the advanced level while still maintaining a college entrance program on the "B" level, then breaking it down still further to make reasonable, well-placed demands on the "C" level. We needed help on this program and were fortunate enough to secure the services of Dr. John Christie, of Vassar, on a consultant basis.

SCHILD: "B" is our broadest group, covering about 50% of our students. Dr. Christie has been of great value in examining the course of study with our teachers in light of the demands made on in-coming freshmen in a typical Ivy League college. This has resulted in greater emphasis being placed on writing and reading skills. We are now considering the matter of what to look for in essay writing, how to make correction a learning device in itself, and how to achieve the minimum composition standards that are expected by colleges.

Q. What teachers comprise your advanced English workshop?

MAC CALMAN: All the "AD" teachers on the four grade levels—nine through 12—plus two more who handle the Great Books sections after school. That's a total of six, plus the department head, plus Dr. Christie. But the regular English department committees continue meeting through the year just as they always have. They make suggestions for further study. For example, we're now considering, with Dr. Christie, how some of the current "AD" material can be diverted into our "A" and "B" sections. After all, these are still college-bound kids and they are studying pretty difficult, college-bound courses.

Q. What if one of your "AD" teachers didn't volunteer to participate in the workshop? What would your attitude be?

MAC CALMAN: That would be perfectly all right, except that we'd probably have to give that section to someone else. These are demanding courses. In order to do an effective job a teacher's interest must be high enough to include doing additional research and study. Refusal to participate wouldn't prejudice a teacher's future, but it would indicate that he is not sufficiently interested to do the creative work necessary to develop this kind of program. He would probably be more comfortable teaching straight "B" sections.

Q. How much work is required of teachers in this workshop, other than the two hours spent with Dr. Christie?

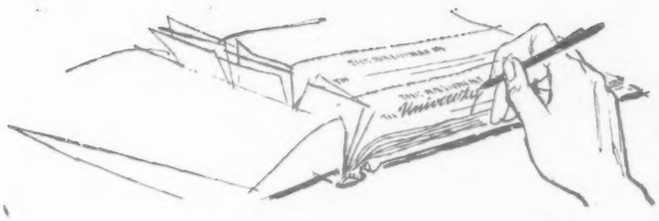
MAC CALMAN: We try to maintain a fine point of balance. We shy away from evening sessions and usually conclude our meetings by

continued on page 117

"In order to do an effective job a teacher's interest must be high enough to include doing additional research and study."

MAC CALMAN

How much does college really cost?



This is one of the toughest questions a guidance counselor must answer when he faces a college-bound youngster. Working against him: misinformed parents, hidden expenses, insufficient scholarship and loan funds. Here is what every schoolman should know about college costs.

■ ■ ■ Most authorities predict that college enrollment will double by 1970 while college operating expenses will almost triple. One question that hasn't been asked in these projections: Who will foot the bill, estimated at more than $10 billion?

It is quite possible that sheer inability to pay the tab for increased costs may well "solve" the over-enrollment problem. That it will have an effect of major proportions is borne out by the results of a recent study of parents' college plans conducted by Elmo Roper and Associates for the Ford Foundation.

Roper uncovered a shocking amount of misinformation about present and future college costs. In many cases he found that parents with college-bound youngsters had no savings to defray future expenses. In addition, almost half of the savings programs in effect were unrealistic. First, they were inadequate even for today's needs; second, they envisioned no increase in college costs in the years ahead. In short, unless they find additional sources of financial aid, many parents who hope to send their youngsters to college in the next 10 years are in for a jolting disappointment.

But this isn't the whole problem. Many parents who worked their way through college in the 1930's and '40's just don't realize that this is almost unrealistic today. Nor can existing scholarship or loan funds be depended upon to close the gap between student need and available financial help.

As for the government's share of the burden of college financing, it is safe to assume that it will increase in the next decade. But there is no assurance that federal funds will ever be great enough to relieve entirely the pinch families with college-bound youngsters are sure to feel.

Where does all this leave the high school student with plans for college in his future? How can he determine the real facts about costs today and in the years to come? Where can he turn for help if his own financial resources are inadequate?

In order to clear up some of the misunderstanding and misinformation that prevails on the subject, SCHOOL MANAGEMENT recently conducted its own investigation of what it costs to go to college. Many authorities were consulted in the attempt to set the record straight, though most of the facts were gleaned from three major sources:

■ The Elmo Roper Parents' College Plans Study, sponsored by the Ford Foundation.

■ Reliable published data, such as "The College Handbook," issued bi-annually by the College Entrance Examination Board.

■ Interviews with admissions officers at representative colleges throughout the country.

What parents think

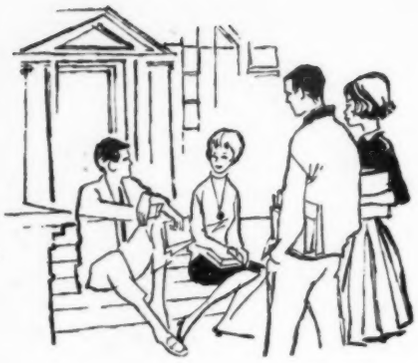
Two major conclusions emerge from Roper's cross-section survey of 5,000 heads of households:

1. Parents are grossly underestimating the cost of higher education.

2. Parents are making almost no adequate plans for financing their children's college careers.

Nevertheless, despite this unrealistic view of the cost problem, they expect 69% of their children under 18 years of age to go on to college. A majority of these parents expect their children to attend a state college, 17% have private schools in mind and 4% anticipate enrolling their youngsters in municipal institutions. Only 5% are considering junior or community colleges, indicating that a majority of parents think in terms of a four-year course when college is mentioned.

There would be nothing particu-



larly startling about these figures were it not for one shocking fact. Half the parents Roper consulted had no idea of what a college education might cost! Those who did, expected the median cost to be $1,450 per year, *including everything—tuitions, fees, books, supplies, room, board, clothing, entertainment, travel and all other incidentals.*

Unfortunately, even parents with some idea of what their expenses will be are apparently making a critical error in their calculations. They based their estimates (even for children presently in kindergarten) on present-day costs. This is a dangerous assumption since it is estimated that some $4 billion of the $10 billion needed to run our colleges a decade from now will have to be raised either from government revenues or from increased student fees and tuition charges.

If, as some sources predict, an undergraduate in 1970 may pay as much as $15,000 at a private college and $10,000 at a state university for four years' schooling, parents' current plans for defraying costs will prove hopelessly inadequate. Yet, according to Roper, these parents hope to pay as much as 70% of total college costs themselves.

Discounting for the moment their unrealistic view of future costs, what are parents doing right now to prepare for the financial burdens to come? The facts, as uncovered by Roper, are these:

1. Sixty percent of parents expecting to send their children to college have not yet set up a savings plan specifically earmarked for the purpose.

2. Of those with plans underway, more than half are depending upon insurance programs which are

text continued on page 115

HOW STUDENTS MEET

How does a college student pay for his education? In order to answer this question, SCHOOL MANAGEMENT queried admissions officers at schools all over the country about student jobs, scholarships and loan programs at their colleges. Three representative interviews are given below—the first at a large Eastern university, another at a state university in the South, the third at a small, private college on the West Coast.

Syracuse University, Syracuse, N. Y.

Average annual expenses

Tuition	$1,100
General fee	100
Room and board	842
Books and supplies	125
Total	$2,167

Here are the answers of John S. Hafer, dean of admissions, Syracuse University, to questions put to him by SCHOOL MANAGEMENT *concerning college costs and how students meet them.*

Q. Can a student work his way through college today without some additional form of financial support?

HAFER: I think there is a lot of misinformation about how much a student can earn while attending college today. Many students feel that they can earn half their total expenses. With the demands of academic work, this is almost impossible.

Q. How much can a student reasonably expect to earn while attending college full-time?

HAFER: The average job on campus pays about $1 an hour. The average student can probably devote 10 to 15 hours a week to outside employment and earn $10 to $15 per week. A good student may be able to put in as much as 25 hours while the really excellent student may find it possible to work 30 or 35 hours. If we assume that a student is in college 28 or 30 weeks a year, his earned income would probably range from $200 to $600 dollars, or roughly, the cost of a year's board on most campuses. So, I don't think it is possible for him to earn enough to go to college without additional financial support of some kind.

Q. What percentage of Syracuse students work while attending school?

HAFER: Between 34% and 38% of our student body combines work and school. This figure is consistent with a pretty definite pattern over the past three or four years.

Q. Do you in any way control the amount of outside work a student may assume?

HAFER: We do, as far as we are able. We have our own student employment agency, run by our personnel office. If we feel students are working too much, we ask them to discontinue it lest it interfere with their academic grades. Often, however, they keep right on working. Ours is a highly industrialized area and jobs are plentiful. Occasionally, some students decide that their jobs are more important than their academic careers. In such cases, it is usually the academic career that suffers.

Q. Can you step in actively when a situation gets that bad?

HAFER: We can and we have. We ask the student to discontinue his outside employment or face the prospect of leaving school. In most cases, our recommendation is heeded. Sometimes students who are far behind academically feel that they may as well continue in their jobs and try to return to college later on.

Q. What effect does outside employment have on a student's academic performance?

HAFER: I think its effect is beneficial. The student who must support himself—even in part—through outside employment usually has a stronger purpose driving him than one who has been given all he needs to attend college. Self-support seems to be a stimulus to good work.

Q. Does the supply of jobs at Syracuse meet the demand?

HAFER: So far, yes. Unfortunately, some students are unable to earn as much as they would like or as much as they need to continue college.

Q. What percentage of Syracuse students have scholarships?

HAFER: About 38% of our students receive some kind of scholarship aid, though funds for this purpose seem each year to be increasingly harder to find. We have been putting more of our own current operating income into the financial program each year, so that we have been able to consistently reach about one-third of the student body with such financial assistance.

Q. What demands are being put on your student loan program?

HAFER: More students are making use of these loan funds than ever before—usually short-term loans and particularly in their junior and senior

years. Generally speaking, we put no limits on the amount that can be borrowed, though a student will seldom ask to borrow more than $200-$300 or, at most, $500—from our sources.

University of Georgia, Athens, Ga.

Average annual expenses

*Matriculation fee	$195
University room rate	183 to $225
Meals, dining hall	372
Books and supplies	60
Total	$810 to $852

**Out-of-state student must pay, in addition, an annual fee of $300.*

Here are the answers of W. N. Danner, director of admissions, University of Georgia, to questions put to him by SCHOOL MANAGEMENT *concerning college costs and how students meet them.*

Q. Can a student work his way through college today without some additional form of financial support?
DANNER: It is possible, although we don't encourage students to take on too much outside work during their freshman year. About one-third of our students earn at least a portion of their expenses by holding down outside jobs. And some of them earn all their costs by working during the summer months as well as during the school quarters.
Q. How much can a student reasonably expect to earn while attending college full-time?
DANNER: Well, most of our students earn 75¢ an hour, the going rate on campus. Some earn more by working in town. I would say that 20 hours per week is the absolute maximum that a student should take on. So his total earnings for a 30-week school year could amount to about $450.
Q. Do you in any way control the amount of outside work a student may assume?
DANNER: No, we do not set an arbitrary maximum on student employment. We do tell students, though, that they must keep up with their studies if they expect to be here next quarter. We let them judge how much time they should spend on outside work. If a student is doing poorly in his studies, however, we can refuse to give him any on-campus jobs. But that wouldn't prevent him from obtaining other employment somewhere outside the school.
Q. Does the supply of jobs at the University of Georgia meet the demand?
DANNER: No, there are more applicants than there are jobs. We have a division of placement for student aid, though, that helps students find employment and a number of them find jobs for themselves in town.
Q. What effect does outside employment have on a student's academic performance?
DANNER: In most cases, I would say that outside work has a good effect. Generally speaking, a working student is serious enough about his college career to make a sincere effort to achieve good grades.
Q. Is there a heavy demand made upon your student assistance program?
DANNER: We have many more applicants for scholarships than we can take care of. About 100 freshman scholarships are awarded each year covering fees but not room and board. These amount to $65 a quarter, or $195 a year. In addition, we have some other scholarships available. We have a large loan fund now with the government program in effect, but we discourage heavy borrowing during the freshman year. If a student reaches his sophomore year with a good academic record, we are prepared to help him the rest of the way through college. Our division of placement and student aid sets a dollar limit on the amount a student can borrow which is sufficient to cover his needed expenses for a quarter.

Reed College, Portland, Ore.

Average annual expenses

*Tuition	$1,050
Fees	40
Room	230
Board (not including lunch)	360
	$1,680

**Effective Sept., 1960, tuition will be increased by $200.*

Here are the answers of George Hay, director of admissions, Reed College, to questions put to him by SCHOOL MANAGEMENT *concerning college costs and how students meet them.*

Q. Can a student work his way through college today without some additional form of financial support?
HAY: I would think it highly unlikely, though it may be possible in rare instances. It would be more reasonable to say that a student might be able to defray half his college costs by working on the side and full-time during the summer.
Q. How much can a student reasonably expect to earn while attending college full-time?
HAY: We caution students not to expect to work for more than 10 hours a week during the 30-week school year. At $1 an hour, or roughly $300 per year, they would about cover their personal expenses.
Q. Do you in any way control the amount of outside work a student may assume?
HAY: No we don't, though we favor the 10-hour-per-week limit. Some students, of course, are more industrious and manage to work and earn more than others. This is a decision they make on their own, since they realize that they must maintain good academic records.
Q. Are there jobs enough in your area to meet student demand?
HAY: I think there are. About one-third of our student body is employed during the school year, so there is quite a rush for jobs each fall, just after school starts. Usually, by the middle of the semester there is no shortage of available jobs and by Christmas jobs go begging on campus. In addition, about 10% to 12% of our students hold down jobs in town.
Q. What effect does outside employment have on a student's academic performance?
HAY: While we don't have precise information on this, it would be safe to say that our working students are *not* our poorest academically. Frequently, some of our best students carry rather heavy work loads. This reflects the importance of a student's being able to budget his own time and to organize himself academically.
Q. What percentage of Reed students are attending under scholarships?
HAY: About one-third of our students are on college scholarships from our regular budget and another 10%, I would say, receive outside scholarship support. So, roughly 40% receive some kind of continuous financial help.
Q. What demands are being put on your student loan program?
HAY: Between 7% and 10% of our students borrow money from our loan fund during the school year. We set a limit on the amount that can be borrowed—$550 for freshmen—which goes up each year.
Q. Do you ever lend money to scholarship students?
HAY: Rarely, since our scholarships are intended to cover the financial need. With our larger scholarships, we frequently approve a guaranteed work provision under which students are expected to earn some portion of their expenses. About 25 of these guaranteed jobs are given to freshmen, and others are encouraged to work if the need arises.

Small schools needn't

In the sparsely settled Catskill Mountains of New York State, 27 school districts, all of them small, are attempting to prove that they can provide a big-school curriculum in spite of their size. Their ingenious methods can be profitably used in larger schools, too.

Noble J. Gividen

Project coordinator

Nathan C. Southworth

District superintendent

Cecil Fowlston

Supervising principal

■ ■ ■ About a year ago, Dr. James B. Conant made this categoric statement after months of study of American schools: "I should like to record my conviction that in many states the number one problem is the elimination of the small high school by district reorganization . . . I am convinced that small high schools can be satisfactory only at exhorbitant expense." Few educators will disagree. But there will always be small schools because reorganization isn't always politically or geographically feasible. These small schools and the communities they represent have the obligation to provide the best possible education for their students.

This is precisely the approach that has been adopted in the sparsely settled Catskill Mountain region of New York State, where 27 school districts are attempting to prove that cooperative effort, short of actual reorganization, can provide more than a make-shift substitute.

Through the use of school aides, multiple classes, electronic devices, correspondence courses and special inter-school scheduling, they are trying to provide a truly comprehensive education for their students at a moderate cost. None of the schools involved in the Catskill Area Project in Small School Design (which is supported by a grant from the Fund for the Advancement of Education) graduate as many as 100 students a year. All encompass kindergarten through the 12th grade. They range in size from about 235 students to 1,100. The median size is about 535. Graduating classes are often as small as 10 or 12. All but one are centralized districts.

It should be noted that those participating in the Catskill experiments do not disagree with the idea of district reorganization. Although they recognize certain unique opportunities in small schools, they see, too, the advantages that can be obtained in larger schools. However, because of physical, financial and other problems, further centralization in this area is impractical at the present time.

It should be recognized, too, that although the Catskill schools are small in comparison to the "magic number" of 100 graduates annually established by Dr. Conant, they are large compared to many others across the country.

"We had two visitors from the Texas Department of Education," says Noble J. Gividen, coordinator of the Catskill project, "who said that these would be large schools in Texas. Population there is so sparse that even after super-centralization many schools will be smaller than the ones we are running. So, you see, we are dealing here with a very real problem, one

be weak schools

1. Shared services

Thomas Matalavage

Teacher of mathematics

that can't be solved simply by saying 'eliminate small high schools.' "

To learn more about the Catskill Area Project in Small School Design, SCHOOL MANAGEMENT sent an editor to Oneonta, N. Y., where the State University College of Education serves as the project headquarters, to interview four experts.

- Noble Gividen, coordinator of the project, is a former member of the Iowa Department of Education.
- Nathan C. Southworth is superintendent of one of the seven supervisory districts in which schools involved in the project are located.
- Cecil Fowlston is supervising principal of the 480-pupil Franklin Central School.
- Tom Matalavage teaches mathematics in the 600-pupil Margaretville Central School.

Their observations—from four different points of view—are presented in the following excerpts from a tape-recorded interview.

Q. Mr. Gividen, how do you feel about Dr. Conant's recommendation in regard to school size? Is it as imperative as he believes?

GIVIDEN: I respect Dr. Conant very much, and we here certainly have no objection to the idea of centralization. As a matter of fact, all but one of the schools participating in this project are centralized already. But we feel that we can do things in our schools to overcome the disadvantages of smallness while maintaining the advantages that small schools have.

Q. You say that there are advantages to small schools. Can they overcome the big disadvantage—a sparse curriculum?

GIVIDEN: Partially. There is one very definite strength, and that is *identity*. Teachers know all the kids —kids know all the teachers, and when you consider that learning is a pretty personal and private affair with each child, you encounter something which offers a terrific opportunity. The real difficulty is that small schools have done little to overcome their disadvantages and exploit their assets.

MATALAVAGE: Let me express it this way: I teach in a small school where I know the children, their parents and their family backgrounds. I recognize the handicaps the kids are working under. And those things enable me to make my instruction more personal.

Q. And you feel this overcomes the curriculum disadvantages?

GIVIDEN: Not by itself. You've got to attack the curriculum problem, too. For example, something we call "shared services" is part of our program. By shared services we mean that two or more districts can make use of the services of a teacher, counselor or some special service that a single district might not otherwise be able to afford. Thus, although one district in this area could afford a teacher of Russian, we have students in three districts taking Russian from a single teacher. His services are shared.

SOUTHWORTH: Shared services means that if a school has enough students for, say, one-and-a-half teachers, we share the half teacher with another school. We do this in music, physical education, art. . . . Shared services in this state are generally provided by what we call "coop boards." I am executive officer of one of these boards. The coop boards are made up of independent local districts. I operate as representative of the state department of education, somewhat like a county superintendent.

Q. Does a shared teacher work with just two schools?

SOUTHWORTH: It has to be two or more. No school can have more than 70% of a teacher's time. I have one guidance man who is working two days in two schools and one day in another. He has a total of about 500 students in junior and senior high school. Another guidance counselor in our district has about 400 junior and senior high school students and he also directs the district program of testing. In addition, he is responsible for the mentally-retarded classes. By sharing his services, we are able to make up a full program, and by sharing the costs of his services we are able to afford him.

GIVIDEN: It should be said here that there is not one pattern of

"When we share teachers it causes quite a stir because this is between independent school districts."

GIVIDEN

sharing which applies to all 27 schools. There are essentially seven patterns because there are seven supervisory districts involved.

Q. Does this mean that teachers can be shared only within a supervisory district, or can they be shared across the border?

GIVIDEN: They can go over the borders. We have five teachers crossing supervisory district lines now.

Q. Who decides where a teacher is to spend his time and how much is to be spent?

FOWLSTON: Let me explain Franklin's program with the Treadwell School. We share agriculture and industrial arts teachers. The agriculture teacher is in Franklin in the morning. During the noon hour he goes to Treadwell. The industrial arts man works in Treadwell in the morning and then he comes to Franklin. By and large they share the same facilities in each school. They are not in each other's hair because they hardly ever see one another—they get a chance to wave to each other on the road and that's about all. But both schools enjoy two specialists.

Q. How do you identify your needs? Let us say that in Franklin School, one year, a group of students wants to take agriculture and you don't have an agriculture teacher. Treadwell has an agriculture teacher. But suppose Treadwell doesn't need a shop teacher? Can you still work out a program of shared services?

FOWLSTON: We would have to look around for another school that had the teacher we needed and could share the teacher we had. It might not be in our particular supervisory district, because we are not a large district, but it is entirely possible to go over district boundaries. Unfortunately, of course, if the person we need isn't available, then we can't carry out the program.

GIVIDEN: I might suggest one solution for the hypothetical case you have set up here. Mr. Fowlston might find that Treadwell did not need a shop teacher but did need a music teacher. He might find a third district that could supply the music teacher to Treadwell, and could use his shop teacher. So, a three-way exchange could be arranged. These are the kind of problems that can be worked out by the coop board.

SOUTHWORTH: I think the key to this whole thing is that you study the demands for these services, not for one year, but for a period of years. When you look at a school system of 500 students, you have a pretty good idea that so many are going to want agriculture, so many are going to want industrial arts, etc. Then you ready your program with the object of carrying it for several years.

Q. How do you find out who has the man you want and who needs the man you've got? Who supervises this over-all problem?

FOWLSTON: The district superintendent makes periodic visits to schools, to board of education meetings, and is in close contact with supervising principals. If my school has a particular need, I go over that with my district superintendent. We discuss it together and somewhere along the line we explore the possibilities of meeting that need through the coop board.

Q. Mr. Matalavage, suppose you found that you had a student ready to study integral calculus. Suppose you were not teaching a class in that subject. Would you go to your supervising principal and see if he could arrange for a math teacher to come in and teach that student?

MATALAVAGE: No. We would handle that single student in another way—probably through a correspondence course or perhaps in a multiple class.

FOWLSTON: Let me point out that we would not think in terms of sharing a teacher for one, two or for three students. As Mr. Matalavage has pointed out, we would meet the needs of these students through different methods. Now, if we had 10 students who wanted a particular course, and we had another need for perhaps two periods of related teaching, then the coop board would come into the picture. We would try to arrange for the shared services of a teacher.

SOUTHWORTH: Perhaps this example, from my district, would help to clarify the situation. In a lot of our schools we have rather small classes in 12th year mathematics. When you get into small classes, as Dr. Conant said, you're getting into an expensive operation. We are exploring the possibility of bringing the 18 students who want 12th year mathematics next year into a central school as one class. We will find somebody—either a special teacher or a regular one who is qualified—to teach this group.

Q. You'll be transporting students instead of teachers?

GIVIDEN: That's right. A similar thing is the program we started in Russian just a few weeks ago. This involves three students from Stamford, four students from South Kortright, and 11 from Delhi. These 18 students meet at one

"By sharing, schools can afford the services of more specialists."

FOWLSTON

school once a week, for two hours, and the instructor comes in and teaches them during that time. He then leaves tapes and records and textbook assignments for them to study during the week.

Q. Doesn't that kind of plan require that schools be fairly close together?

GIVIDEN: Yes. But if we should find out, for example, that the Russian program can be handled with a reasonable degree of success, this opens up new possibilities for shared services. Remember, this is an instance where a teacher meets just once each week with his students. And by having the right materials and the right plans and everything else prepared, he is able to have them work *on their own* for the rest of the week. If this can work, look at what it opens up! That teacher might be shared by *five* schools and it wouldn't matter too much how far apart they were.

SOUTHWORTH: I think one other thing should be made clear: we don't transport many of the teachers during the day. When they go into a school for a day, they usually stay there and the next morning they get in their cars and they go to another school. We try to keep them in a close enough area so that there is not a lot of traveling—most of them go about 16 miles—and we make time available by eliminating them from extra-curricular work and night duties.

GIVIDEN: The key to the whole shared services program is cooperation. Nobody thinks much about it when a big school system uses a single psychologist to work in several schools. But when we share a teacher between several schools it creates quite a stir because these are independent school districts. But there is no reason why they can't work together.

"In multiple classes much of the responsibility for learning is placed on the pupils."

MATALAVAGE

2. Multiple classes

Q. Mr. Matalavage mentioned that in the case of one or two students requesting a particular subject, you might turn to "multiple classes." Just how do these work?

MATALAVAGE: By definition, a multiple class is basically one in which there are two or more subjects taught in the same room by the same teacher at the same time. For example, there may be an elementary algebra class with one student in it taking 12th year algebra. There are multiple classes in which more than one language is taught in one room at the same time. I have 17 students taking elementary algebra and seven taking general math together.

Q. You mean that you teach the whole group at once?

MATALAVAGE: If a teacher has available learning devices and aids, they can do much of the instruction for him. The teacher can give his attention selectively to a particular pupil or group of pupils.

Q. In other words, you are saying that the students work on their own?

MATALAVAGE: Yes. Even if I weren't teaching a multiple class, I would still use that same technique. The responsibility for learning is placed on the pupil and if he accepts that responsibility—and I guess we are fortunate in these small schools that we have people who will—then there is a great deal of learning that can take place.

Q. Is there anything about these two subjects that makes them particularly good together. For example, could you take a student who is learning solid geometry and put him in that same class?

MATALAVAGE: I think so. I don't think it is necessary to have related subject matter in a multiple class. But that would depend on the teacher of course—some would be more secure with related subjects.

Q. In other words, if you were accredited to teach a language, it would be possible to take two language students in this classroom?

MATALAVAGE: Yes. We currently have a Latin and French class going at the same time. We have never tried such unrelated subjects as language and math, but if the teacher had the proper materials, there would be no reason why she couldn't do a bang-up job. In fact, it is possible that with the proper teaching aid, a skillful teacher who does not qualify in a particular subject might still be able to create an atmosphere, in a multiple class, that would make for good learning.

Q. Do you, as a teacher, find it difficult in a multiple class situation to switch back and forth? In other words, a student is working on a problem in elementary algebra. Do you find it difficult to suddenly come over and help another student on a decimal problem?

MATALAVAGE: No. I don't have to pull myself away from one trend of thought to go to a different problem. I am conscious of all the activity that is going on in the room.

GIVIDEN: Multiple classes are not new. The difference is that we are strengthening the teacher by using tape recordings and other devices. In the old days a teacher with multiple classes was left almost entirely on his own. Now these teachers are finding new ways to focus on small groups or individuals. Putting an algebra problem or a French lesson on tape relieves the teacher to do a better job of individual teaching.

Q. Have you evaluated the multiple classes at all? Do you have test scores or anything to show that they are successful?

FOWLSTON: We don't have any scores to prove that it is successful,

"Correspondence courses are good for students with a real desire to learn."
SOUTHWORTH

but we do know that our people taking part in multiple classes are doing at least as well on standardized tests as students have in past years. They are neither higher nor lower. In other words, we are convinced that a student in a multiple class has not lost any education. Now, perhaps, had those people been in another situation, they may have gained more, but we were not able to provide that other situation.

3. Correspondence courses

Q. You mentioned correspondence courses earlier. How are they used?

FOWLSTON: I would say that the basic reason for correspondence courses is to satisfy the situation where you have just a few students who want to take a particular subject—fewer students than you would have in a multiple class situation. For example, we had a girl who was a language whiz. She had completed two or three years of Latin and three years of French and she was interested in German. There are a number of different schools that put out very good correspondence courses. Although our language teacher had no background in German, through the use of the correspondence material, she was able to help the student learn German.

SOUTHWORTH: I think we ought to clarify the correspondence program. This is different from the so-called correspondence course which is turned over entirely to the individual and is done at home. The understanding is that once a week, or as needed, a teacher or someone else capable will check the students to see that they are doing their work and to help them if they are stuck.

Q. How can a teacher who does not speak German help a student studying German?

FOWLSTON: We were successful because we had complete tapes and the student had the use of a tape recorder. She probably was hearing the language spoken better than would have been the case if our teacher thought that she had the ability to teach German.

SOUTHWORTH: Don't you feel that you have to be more selective in the type of student who takes correspondence courses?

FOWLSTON: Yes. Somewhere along the line you might ask where we failed. Well, here was one place. We had a mediocre student who wanted automotive mechanics. He was threatening to quit school. His parents came in and said that if we offered automotive mechanics he would stay in school. We located a correspondence course and got everything all set up. The boy did about two lessons and then petered out on it. He did stay in school, and he did graduate, so we achieved one goal, but he got nothing from the correspondence course.

Q. What other correspondence courses have been started in the schools?

GIVIDEN: Solid geometry, 12th year math, some calculus, American poetry, bookkeeping, mechanical drawing . . . these are just a few that I can think of off-hand.

Q. Let's take solid geometry. Mr. Matalavage, as a math teacher you have familiarity with this subject even if you haven't taught it. In a case like that, wouldn't it be more to the point to put a student into one of your multiple classes and teach him there?

MATALAVAGE: One student? Well, in a multiple class, there's a certain amount of pre-planning necessary, and if a good correspondence course is available, it is pre-planned for me. I do not think I would have the time to do the work necessary to plan a course for a single student. But with a pre-planned course available, I would certainly have time to help him with his work. Remember, you get more than a book in your correspondence materials. You get testing services, assistance to the teacher, auxiliary materials.

Q. Could a correspondence course be successful in a school which lacked a teacher with any training in the area being covered? Suppose you had a student who wanted to take meteorology and you had no teacher in your school with any familiarity with that subject?

FOWLSTON: I think we could still do it. There have been all sorts of correspondence courses provided in school situations where facilities and certificated teachers were lacking. Now whether you can use it with the same facility or to the same advantage as when you have a certificated teacher is a real question. Obviously it would seem that you could not.

SOUTHWORTH: I think you can if you pick your students. If you have a student who has the desire to do something, he can do a lot with a little help from somebody. Now that somebody does not have to be a specialist by any means. If he has some background—even though it might be limited—that helps. I think the whole key is the type of student.

Q. Where do you get these correspondence courses? How do you avoid getting improper courses?

FOWLSTON: The project has a correspondence study group which has been looking at this problem and evaluating correspondence materials from various sources. So we have a way of preventing irresponsible schools or irresponsible agencies from taking advantage of us. We use material from the University of Nebraska, from the American School, the International Corre-

continued on page 110

Foolproof scheduling—in record time

You can eliminate the next student programming bottleneck in your school with this low-cost, manual data processing system.

By ANTHONY S. MATULIS,
Principal, Taylor Center High School, Wayne County, Mich.

■ ■ ■ For two years now we have been able to schedule our 1,500 students at Taylor Center High School in suburban Detroit without confusion, delay and needless expense, thanks to the smoothly functioning system of programming we adopted in 1958.

In addition, the plan has enabled us to place students in homogeneous study groups according to their aptitude and achievement records. We have three aptitude groupings—A, B and C—for each major subject. While this has tripled our scheduling problem, the system we use has so simplified the job that it takes only about one-quarter the time of our old tally method.

The program was devised for us by the Royal McBee Corp. two years ago and has since been installed in several other schools in this area with similar success. All the forms, cards and equipment necessary to maintain the system in our school cost about $1.25 a year per student—less than the expense of hiring one extra school secretary.

Benefits beyond scheduling

We have gained in other ways, too, on problems of attendance and grade reporting. At Taylor High, we now need only three secretaries to process work which requires five or six people in many other schools. Other benefits that have resulted:

1. We can pinpoint attendance problems, since our attendance records are positive. As a result, our rate of attendance jumped from 92% to 96.4% in a single year. Positive controls have virtually eliminated the unauthorized "skipping" of classes by students.

2. We have reduced by *eight weeks* the summer work load of our assistant principal in charge of scheduling.

3. The clerical work which must be performed by teachers has been drastically reduced. Grade reporting alone, for example, has been so simplified that instructors handle it during non-teaching hours. Previously, a full day off had been required for each reporting period. In effect, we have gained six extra teaching days a year for each of our 60 teachers. Or, put another way, we now have available each year an extra $8,000 worth of teaching time.

Scheduling is simplified

These benefits, though welcome, are really only by-products. The real justification for our new system

PRE-REGISTRATION COUNSELING

Shortly after the beginning of the second semester, the guidance counselor uses program sets in pre-registration to help each student choose his subjects for the coming year.

is the easy, error-free fine scheduling which it makes possible. Consider these advantages:

■ *Total scheduling for the 1958-59 year was completed only one week after the end of the 1957-58 year.* Our scheduling had formerly been a mad scramble, ending some time in the wee hours of the morning the new term began.

■ *On the second day of the 1958-59 school year, our halls were as quiet as at mid-term.* No balancing and settling time was required. In previous years, it took us three weeks to get the school settled and about three months to balance out classes. On one occasion, 50 students reported to one section of an American history class while only 10 reported to another. This sort of thing doesn't happen anymore.

■ *The system helped end platooning at Taylor High by eliminating errors in scheduling.* We used to expect an error factor of from 50 to 100 students in the scheduling of each major subject.

■ *The subject demand for the coming school year is indicated in pretty definitive terms by our system early in the last semester of the current year.* This gives us an early look at the adequacy of our staff and enables us to avoid last-minute "scrounging" for competent staff additions. We are no longer faced with the problem of trying to get students into classrooms—without conflicts—at the time school starts in September.

How the system works

The procedure we follow is based upon the manufacturer's system of data processing. Holes are pre-punched by the company into cards and multi-copy forms which can be mechanically sorted to process rapidly mountains of data. From each student's master program card, stem class and attendance cards used to devise the master schedule, grade report forms and virtually all reports necessary in school operation.

Basic to the system is a six-part, carbon-backed student program and registration form set, onto which voluminous information has been pre-printed. Included is a complete listing of the 70 to 80 subjects being offered, with code numbers and blanks for full student identification. Blanks also are provided for subject selections and the hour, room and teacher for each subject. A hole for each subject is pre-punched into the edge of the card by the manufacturer.

The office staff takes the first step by printing the student names and identifying information onto these program sets. Addressograph plates are used. Each student's program set then is "notched" or punched for the student's code number and sex. The program sets are hand-sorted to counselor order. Counselor identification then is punched into each card by a process known as "gang grooving." This simply means that all cards for each counselor are grooved or punched in one operation. Student subject and attendance cards are gang-grooved for sex only.

These sets go to our counselors shortly after the beginning of the second semester for use in pre-registration. The counselor helps each individual student choose his subjects for the coming year. To determine applicable ability grouping, the counselor refers to results from aptitude and achievement tests, previous and current report cards, etc., in the student's folder. The counselor indicates on the program set the ability classification of the student by subject. Other information (such as family doctor, parents' business phones, homeroom, etc.) also is written on the form.

The counselor then pulls a sub-

ject card, pre-grooved for the proper sex, for each subject selected. He enters the subject and aptitude grouping in pencil on appropriate blanks on this card.

The subject cards then go to Mrs. Azalee Pauloski, our assistant principal in charge of guidance and scheduling. She arranges them in a pull-card tub file which has been set up with tabs for each subject to be taught. Each subject division is sub-divided by the three aptitude groupings within the subject. After Mrs. Pauloski puts the subject cards in appropriate places by these groupings, they are permanently punched for subject and aptitude.

Naturally, frequent changes in programming occur. The counselor is responsible for making the change on the student's program set and for sending new cards to the scheduling assistant principal for the new subject indicated. The counselor marks the card as a "change card." Such a card is put into the proper subject and aptitude grouping and a card is pulled from the subject and aptitude grouping for the course being dropped by the student.

The next step is to count the subject cards. From this, we get a grand total, a total for each subject, and a total for each aptitude grouping. When these figures are divided by a pre-selected number representing the optimum class size, we know how many class sections there will be for each subject and aptitude grouping—as many as 18 for some subjects.

Teacher assignments

With the subject demand thus broken into class sections, we are ready to assign hour, teacher and room for each section. First, however, a rough check is made to determine whether staff and room facilities are adequate. If not, several alternatives are possible. It may be necessary to platoon students and hire extra teachers. Or, perhaps, if the discrepancy is small, some of the smaller sections can be combined. In certain subject groupings, this often is necessary anyway where sections are too small to warrant economical teaching.

Teacher and room assignments, incidentally, are not hit-or-miss propositions under our system. Teachers are assigned on the basis of their preferences (for subjects and aptitude groups) and their accreditation and abilities (as judged by the principal). A room list indicating the subject for which each room is best suited is drawn up.

The next step is one of putting the proper number of subject and attendance cards in separate sections in the pull-tub for each individual class section. Care is taken to achieve proper balance between sexes.

Thus, we have a group of cards for each individual class section—each class section having been previously divided by subject and aptitude grouping. The next step is to give each class section a period designation.

Conflict-testing

The technique here is to start with the most pivotal subject. This will be a subject in which there is only one section for a particular grouping, or which must be taught in a particular room, or by a particular teacher.

Pivotal subjects are assigned in non-conflicting periods until such time as all periods have been assigned once and it is essential to schedule another pivotal subject in a period already assigned to a pivotal subject. Then the student program sets are used to determine the extent of the conflict between these two subjects. This is simplified by Keysorting. To explain the process, suppose that we want to schedule Latin (A aptitude) in the third period and we already have scheduled Band practice in this period. We would take the program cards for all students and sort out all sets notched for Latin. This is a simple process. One simply inserts the needle-like Keysorter into the hole in the sets for Latin. The Keysorter is then lifted. Those cards which have been grooved for Latin (A aptitude) fall to the table below. (*see photo, this page*).

The group representing A aptitude students who wish to take Latin then is tested for Band in a similar manner. If no cards drop, we know that there are no conflicts. If a few drop, these represent con-

CONFLICT-TESTING

The needle-like Keysorter simplifies the problem of conflict-testing. When it is inserted into the proper hole in the program sets for a given subject, those cards which drop down represent conflicts.

The time and effort saved by simplified attendance-checking procedures can

. . . CARD CLIPPED . . .

If a student is absent from class, the instructor simply clips his card outside the classroom door to await collection.

ABSENCE CHECKED . . .

Horace Chance, assistant principal in charge of attendance *(left)*, immediately checks on all students who are absent.

flicts and one of the two subjects should be tested for another period where no conflicts arise.

Though this is a trial and error process, it is extremely fast. We can test our entire curriculum for conflicts in an hour.

As this period assignment and conflict-testing proceeds, we keep a running total of students being taught each hour and those not being taught. We try to maintain a balance between the two.

Two-section subjects must also be resolved for conflicts. Say Spanish (A aptitude) is offered in only two sections. Can we schedule one section of it in the third period where Latin and Band already have been scheduled? We sort the program sets. The cards which do not drop in Keysorting represent those who can take Spanish the third hour, as none have indicated they will be taking Latin or Band. Cards dropped represent those students who would have a conflict in the third period. These are tested to find the best period in which they can be scheduled as the second Spanish section.

Multi-section subjects are assigned periods over the day, and program sets are run through for conflicts until a non-conflicting section is assigned.

Next, we load into the pull tub cards for homeroom and lunch periods and assign them.

When the pull tub is fully loaded and adjusted, with no conflicts in evidence, the subject and attendance cards are first "sight checked" (a matter of stacking them together and looking to see that all have been identically grooved) and then permanently punched for instructor, classroom number and hour. This information also is put on the pull tub file tabs which divide the file into classroom sections.

Student assignments

Now we have broken each subject down into aptitude groupings and each grouping down into classroom sections of near optimum size. Each section has been assigned a non-conflicting period in which it will be taught, a room number and an instructor. Only one thing is missing: we still must name the students.

To do this, we begin with the first subject and aptitude group scheduled. We Keysort out all program sets for students taking this course by aptitude groupings. A card for the subject is pulled from the proper file section and attached to the program set. Next, we draw a card from the proper aptitude grouping for the next subject listed on the program card and so on until there is a class and attendance card for each subject listed on the program set.

This done, we make final entries (hour and room number for each subject) on the program set. Also, we add the student's name to each class (subject and attendance) card.

Using the Keysorter, we now put class cards in teacher and hour order, securing them in packets by hour with rubber bands. These are given to the teachers and become their class rolls.

The student program and registration set, of course, is used during the fall registration. It now has been marked to indicate the exact time and place where the student will report for each class. This is controlled by the subject and attendance cards in the possession of the instructors for various class sections. Each child *must* go where his card is. With our old system, we

be used by instructors for teaching.

. . . RECORD RETURNED

At the end of the day, all cards sent to the attendance office are re-sorted and returned to instructors via internal mail.

often had problems with children who elected to go to a section other than the assigned one to be with a friend or for some similar excuse. With our new system, controls are such that students don't try to schedule themselves.

Simple attendance check

Attendance for the day is taken in homerooms. The teacher runs through his cards, which have been put in alphabetical order. If a student is absent, the instructor simply clips his card outside the classroom door (*see photo, page 72*). These are picked up early each period. They are brought to the attendance office where they are Keysorted into alphabetical order by grade.

From these cards, an absence list is dittoed and issued to all teachers. Counselors use the list as a basis for making telephone calls to check on absentees. The complete telephoning job is done in two hours.

Previously, we used a class attendance system which required the homeroom teacher to mark presence or absence of each student on a pre-printed roll. Mistakes resulted.

More important, however, is the control which our present system gives us over attendance in each and every class.

The absentee list is made up right away and it is distributed within 15 minutes after all cards come to the attendance office.

During the day, the classroom instructors send to the office the subject card for any student who is absent and whose name does not appear on the master attendance list. Horace Chance, our assistant principal in charge of attendance and activities, immediately begins checking on these "skips."

"Getting the information fast," he reports, "is half the battle. You don't have to nab many children on their way out the back door before the word is out that kids can't get away with skipping classes anymore."

At the end of the day, cards sent to the attendance office are Keysorted back to instructor order and placed into the instructor's mail box.

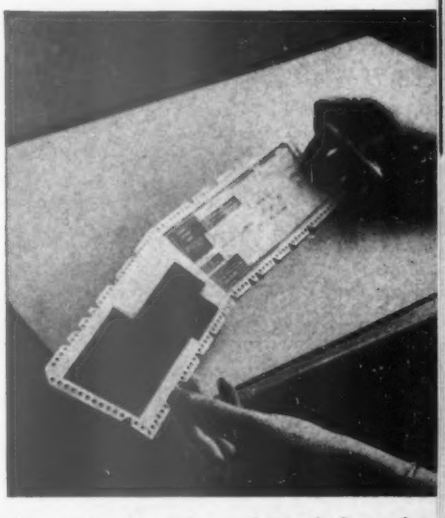
How grades are reported

We use a six-part carbon-backed accumulative grade form for each subject. This is so designed that we

ONE ENTRY . . .

Grade reporting becomes a simple matter. All the instructor does is enter the grade on top of the report form.

. . . FIVE COPIES



The original entry, carboned through the remaining five copies of the form, does away with multi-entries.

have, in one set, grade report forms to be used for the entire year. As the teacher marks the grade for the first marking period, it is carboned through the remaining five copies. When the second marking period arrives, she writes the new grade on the second sheet in the form. Carboned on it is the mark for the first period.

Prior to the first marking period, these report forms are loaded into the pull tub using the same tabs used in scheduling. After loading, they are punched for subject name and number, aptitude, instructor name and number, classroom number and period.

The file copy of the program set is used for the process of pulling report cards by subject and aptitude grouping for each student. After cards are pulled, student information is punched into the card.

When the time arrives to mark the cards for the first marking period, they are Keysorted into instructor order alphabetically by student, by period. The report forms then are issued to the instructor. All he has to do is mark the grade for one subject on the card, using the daily grade book as source information. Each instructor returns marked report forms to the office. They next are sequence-sorted by homeroom, alphabetically by student. The top copy of each card for each student is torn off and joined with the other copies for that student. These top tissues, stapled together, are issued to the student and need not be returned.

The remaining portion of the multi-part form is Keysorted into counselor order, alphabetically by student. The cards are kept on file with the counselors so they will be available for ready reference between marking periods.

An interesting feature of the system is the fact that an instructor does not see the marks other instructors give a student. The student is assured of an objective mark in each subject.

At a future date, the hardback copy of the report card will be used to build statistical information useful to our school management. At present, it is filed as a part of the student's permanent record. It eliminates posting to that record.

Obviously, the controlled attendance records are important in child accounting. In Michigan, we must report total attendance on the fourth Friday after school begins to qualify for state aid. Our attendance officer goes to work immediately checking out the program sets which are not enacted when the term begins.

Child accounting, however, has been installed by Royal McBee as an integrated part of the procedure with special cards for this purpose in other installations in this area—which is serving as a national proving ground for the system. Other cards and forms also have been added to simplify the process described here and to integrate other additional data, including bus transportation. We print student information on our cards from Addressograph plates; other schools have instituted a new data punch which enables them to print and punch in one operation.

From our own experience, we are convinced this is a low-cost integrated data processing system that can be of immeasurable value to the nation's secondary schools. At Taylor High, we believe the results speak for themselves. **End**

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★ Save Time
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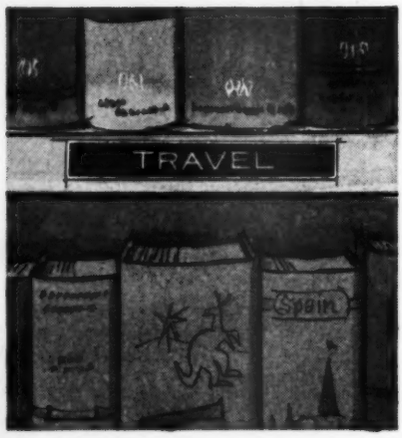

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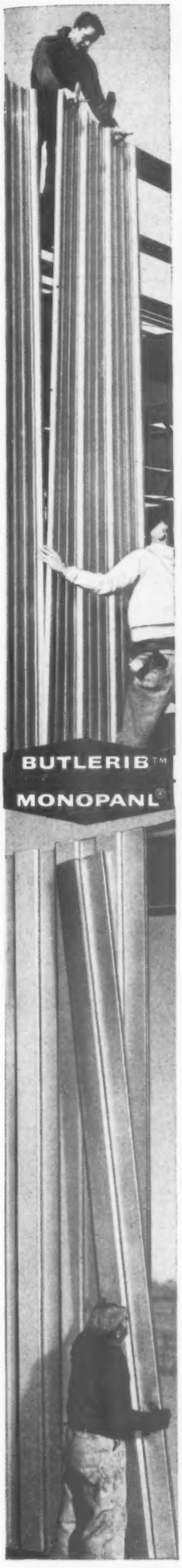

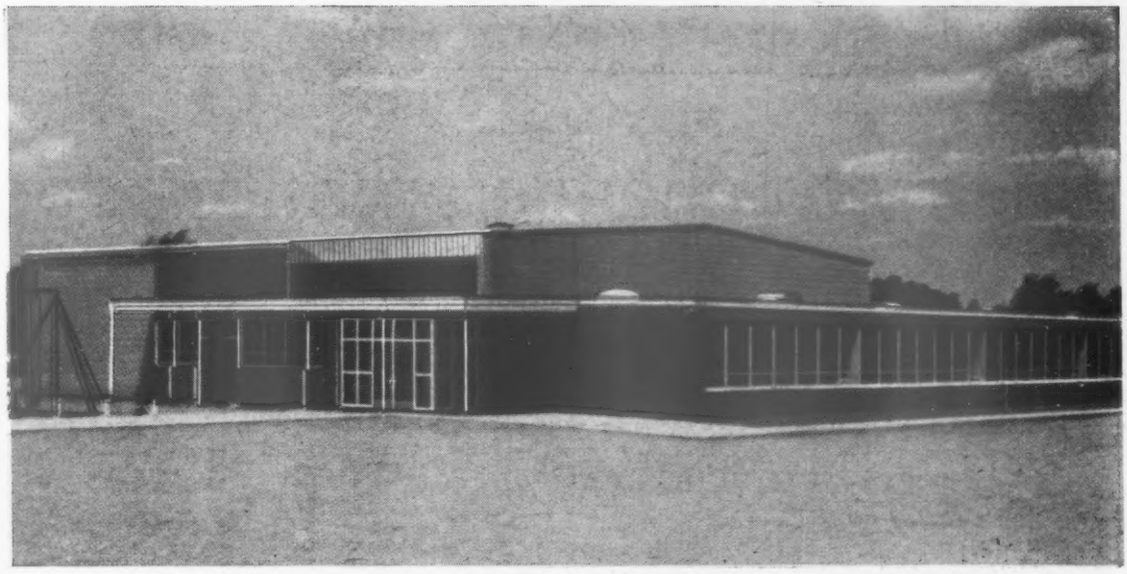

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How to change an outmoded room

In this old, but sound, building . . .

an old-fashioned classroom . . .

■ ■ ■ Outmoded classrooms can eat up valuable space, cramp the educational program and make teaching more difficult than necessary. But many school districts across the country are using these rooms "because they are there."

The cost of junking a complete school to eliminate a few old-fashioned rooms is prohibitive and—if the structure is sound—unnecessary.

In Chicago's St. Gabriel School, the Brunswick-Balke-Collender Co. sought to prove that any room could be modernized with a little imagination and pre-planning.

Shown on these pages is the conversion of one room in the school. Architect Thomas Edward Cooke states that a new school built in the same area at the same time "would cost between $20,000 and $30,000 per classroom, excluding furniture and equipment."

The new classroom, completely equipped, cost considerably less than $10,000. A good part of this cost was made up of overtime charges necessitated by a gimmick —the effort to complete remodeling in a single weekend.

Equipment in the room includes chairs and desks for 36 students, a teacher's desk, wardrobe units, tables, extra chairs, storage cabinets, a book truck, an audio console, fibreglas draperies, chalkboards, and other wall accessories. **End**

was made into a spacious, well-lighted, newly-equipped, modern room

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EXPLORATIONS IN EDUCATION

On accelerated English courses

On ways to cut fall warm-up time

On pre-kindergarten parent conferences

The following case histories were submitted by readers in districts where schools are better utilizing staff, space or time. They are presented as part of a joint project with the Teacher Education Committee of the Massachusetts Association of School Committees.

HIGH SCHOOL HAS SUCCESS WITH ACCELERATED ENGLISH

ACCELERATED ENGLISH COURSES for the ninth, 10th, 11th and 12th grades have proven a great success in the Lakeview High School, Decatur, Ill.

Students with IQ's of 110 and above, who are doing good school work and have their teachers' recommendation, are placed in separate English classes in order that they can be given accelerated work. Parents are notified of their children's selection and are called into conferences so that the program can be explained.

The accelerated classes stay on their own level, never attempting to include material from the next grade. The idea is to *enrich* the usual content of the courses by introducing worthwhile work and projects that cannot be covered in the regular classes.

For example, extra plays and novels are studied. A greater amount of outside reading is required and weekly themes—expected of *all* students—have to be of higher quality.

By way of projects, an accelerated ninth grade class made a scrap book of themes, illustrations and maps relating to the novel "Great Expectations." The 10th grade, in its prescribed study of "Silas Marner" made a display case exhibit including a model of Silas Marner's house, complete with furniture and dolls dressed in costumes of the times. Such work, we feel, helps develop imagination and creative ability, but it requires more time than can be spared in regular classes.

The ease with which better students can master grammer allows more time to be spent on vocabulary and word study. In the ninth grade, for instance, time is spent each week in learning Greek suffixes, prefixes and roots and in becoming acquainted with the English words derived from them.

All of our English students are given the Tressler Minimum Essentials of English test at the beginning of the school year and again in the spring, so that we can test the progress made by our accelerated classes. The results of the spring tests last year showed that in most cases students in the accelerated classes made far more progress than students who would have been eligible for accelerated classes the year before, but were deprived of the opportunity.

Although some students objected to the amount of work required of them in the accelerated course last year, there were few transfers and the general reaction at the end of the year was a favorable one. Teachers, too, felt that the courses were worth continuing.

Reported by Louise T. Rice, chairman, foreign language department, Lakeview High School, Decatur, Ill. (Miss Rice has offered to make available to schools requesting them, course outlines in English for three ability levels in grades seven through 12.)

CLASS OBSERVATIONS, DISCUSSIONS CUT FALL WARMING-UP TIME

TOO MUCH TIME is lost at the beginning of each new school year, while teachers get to know the habits, idiosyncracies and problems of the children they are going to teach.

Three years ago, the teachers in our elementary school discussed the possibility of collecting information on their next year's classes, during the preceding spring.

It was felt that if time could be made available to observe the in-coming class in action—and to discuss the class with the present teacher—much valuable information could be obtained by the new teacher, cutting down on the problems she would face the next fall.

To implement this idea, we adopted the following plan:

During the latter part of May, the receiving teacher (the one who will be teaching the group the next

continued

fall), is given time during which she can sit in on class sessions of her future group and make notes on her observations. The time is arranged to be convenient to both the current and receiving teachers.

After this observation session, the two teachers hold a conference, during which time the current teacher presents any information she feels may be valuable, and also answers questions that have arisen in the receiving teacher's mind.

We have made this conference time available by scheduling a movie from 2 to 3 p.m. on a Wednesday afternoon in June. The movie is proctored by music, art, physical education and sixth grade teachers.

During this hour, teachers of kindergarten and grades two and four, present their information to the receiving teachers in grades one, three and five.

After the 3 p.m. dismissal, roles are reversed and the teachers from grades one, three and five present their knowledge to the receiving teachers in the second, fourth and sixth grades.

Since our first experiments with this articulation program, we have structured our observation and conference sessions so that they could best utilize the time available.

This was done by having the observing teachers note the kinds of things they would want to know about their incoming classes. These sheets were then used to collate the information teachers considered necessary if they were really going to know the students in their classes.

As a result of this effort to structure our conferences and interviews, two outlines were developed, to be filled out by the *current* teacher. One tells of the academic work of the class and includes such information as reading groups and books they are using; where different groups stand in arithmetic; trips taken and science work accomplished.

The second outline is concerned more with the work habits and attitudes of the class as a whole as well as specific individuals. Such information as students who are below class level and why, students who are not working to capacity, and groupings of students who work best together, are included in that report.

Since we created this structured report outline, we also structured our visits and conferences somewhat more than before. Now each receiving teacher gets the outline sheets on her prospective class *before* she schedules her visits. Two half-hour visiting sessions

Here's what we're doing in our district

_____

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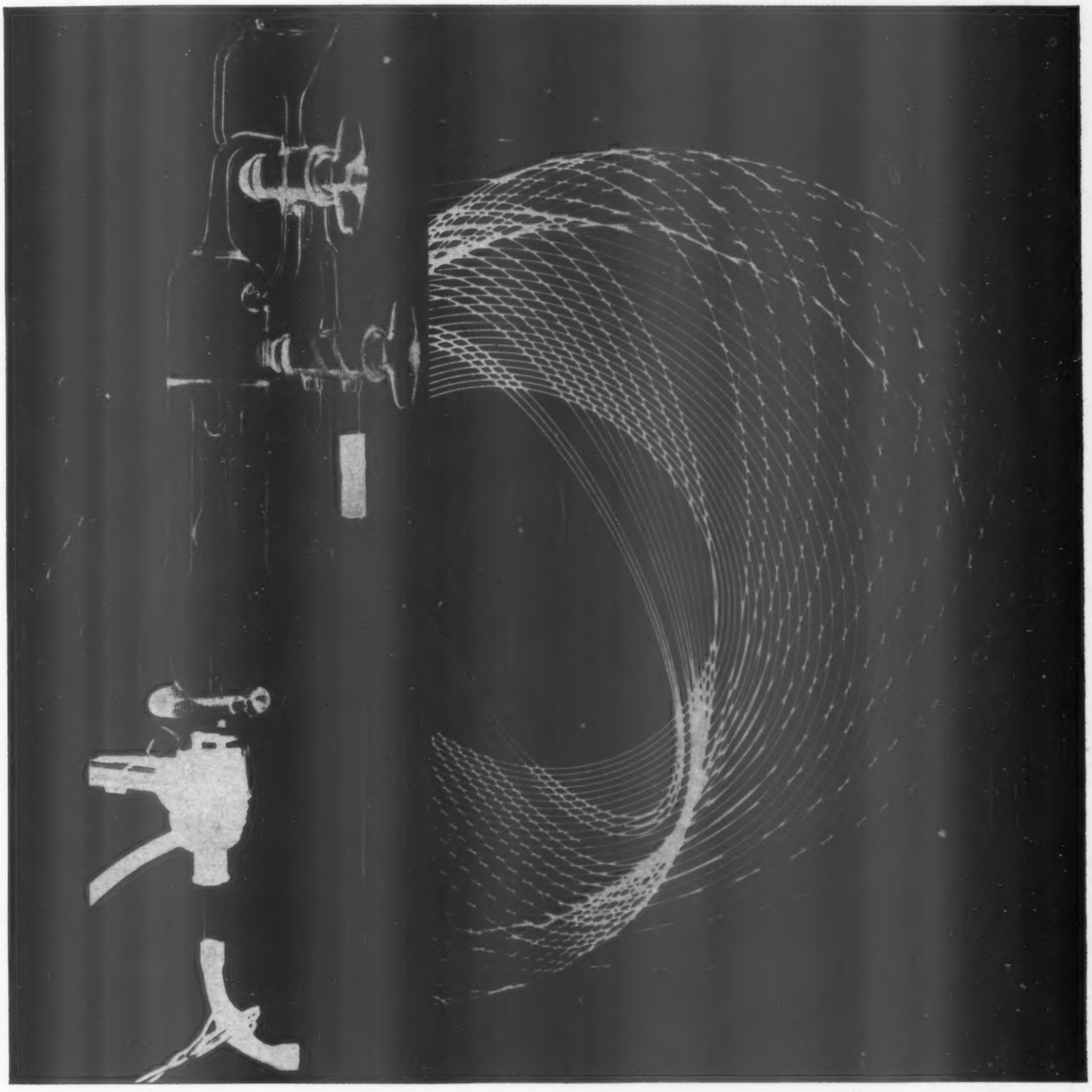
THE QUALITY OF LEADERSHIP

No. 1 in a series of messages to all concerned with better education



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are arranged and then the two teachers involved hold their conferences.

We feel that this program has accomplished all of its basic objectives: starting school more efficiently; having better-informed teachers; giving greater continuity in work; and individualizing the work of the class earlier in the year.

The last two years we have gained an additional advantage from this program by involving teachers hired for the next year. As a result, these teachers are able to prepare plans and materials during the summer that are suited to the specific children they will be teaching. Thus, when school opens in the fall, these teachers come to us, not as strangers, but as prepared staff members.

Reported by Mrs. Margaret E. Hieronymus, Principal, Colonial School, Pelham, N. Y.

PRE-KINDERGARTEN CONFERENCES AID CHILDREN, PARENTS, SCHOOL

MEMBERS OF OUR STAFF have been concerned for some time about helping kindergarten children make an easier adjustment to school. We felt that if teachers had advance information about children, problems that might otherwise arise could be avoided. And if parents were aware of difficulties that could be overcome, perhaps they would take care of them, or at least begin treatment during the summer. To help get over the hump, last year we inaugurated pre-kindergarten conferences to be held in the spring.

Each child had eye, ear and speech screening tests. The parent or parents had conferences with the county psychologist, the school nurse and the district speech therapist.

Of the 84 children participating, 75 passed the hearing test, six needed further eye tests and 33 had speech problems. Having this knowledge in advance proved of great value to our professional staff.

In her conferences with the parents, the nurse obtained a health history of the child and discussed briefly health habits necessary to good school adjustment. The psychologist made further appointments with parents who wished help with special problems. The findings were summarized and given to the kindergarten teachers.

The conferences also offered an opportunity for good working relations between home and school. The kindergarten teachers felt that parents were more at ease from the start of school. More kindergarten parents took an active part in PTA activities and parents became acquainted with some of the special services our schools provide.

A survey of 59 parents involved, revealed that only one felt that the pre-school conferences were not of value.

We are preparing now for our second pre-kindergarten conferencing of children and parents. We feel it is worth all the time and effort involved.

Reported by Betty W. Shattuck, Principal, E. P. Foster School, Avenue School District, 2647 N. Ventura Ave., Ventura, Calif.

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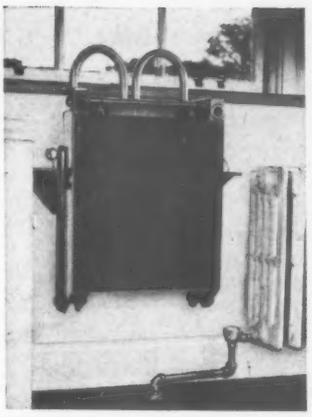

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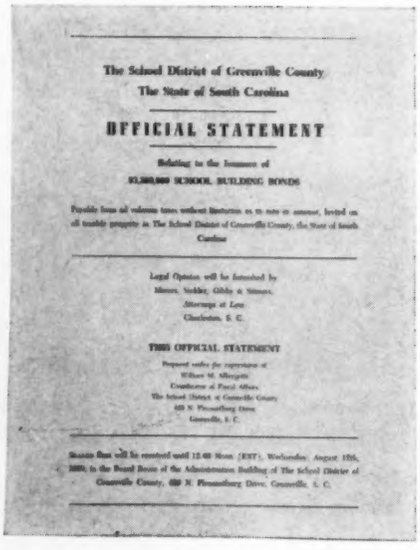
If you'd like to get low interest rates on your bonds, tell the (investment) world about your district's financial situation. Schools in Greenville County, S. C., did, through a widely-publicized bond brochure. Result: they're paying only 3½% on a $3.3 million bond issue.

Low-bid insurance for school bonds



The School District of Greenville County
The State of South Carolina

OFFICIAL STATEMENT

Relating to the Issuance of

$3,300,000 SCHOOL BUILDING BONDS

Payable from ad valorem taxes without limitation as to rate or amount, levied on all taxable property in The School District of Greenville County, the State of South Carolina

Legal Opinion will be furnished by
Messrs. Webb, Gibbs & Simons,
Attorneys at Law
Charleston, S. C.

THIS OFFICIAL STATEMENT

Prepared under the supervision of
William M. Albergotti
Coordinator of Fiscal Affairs
The School District of Greenville County
301 N. Pleasantburg Drive
Greenville, S. C.

Bonds that will be received until 12:00 Noon (EST), Wednesday, August 19th, 1959, in the Board Room of the Administration Building of The School District of Greenville County, 301 N. Pleasantburg Drive, Greenville, S. C.

■ ■ ■ Once a community has approved a proposed bond issue, a lot can still be done to save the taxpayers money. When residents of the school district of Greenville County, S. C., voted overwhelmingly in favor of a $3.3 million bond proposal last February (by a margin of five to one), the school board immediately began planning ways of keeping the bonds' costs down.

Guided by Col. William M. Albergotti, the district's coordinator of fiscal affairs, it decided early that a factual, informative brochure should be prepared and circulated among those brokerage houses which might be interested in bidding on the bonds. This official statement about the bond issue, prepared under Albergotti's supervision, eventually reached some 150 houses as well as several rating services. One immediate result: Moody's Rating Service promptly gave the Greenville bonds a provisional "A" rating.

After the brochures had been distributed, the board received many requests for extra copies. Many bond houses, not on the initial distribution list, heard about the booklet and wrote for it. Interest in the bond issue was reflected, too, in the numerous telephone calls that came in asking for more information.

What it contained

Why did the brochure stimulate such interest among investors? Because it provided them with an accurate, convenient picture of the district's financial situation. Included in this picture were detailed facts about such things as the bonds themselves, the school district, the geographical area in which the district is located and an accounting of the value of taxable property.

The brochure's table of contents provides a helpful outline of the kind of information which should be covered by any school district interested in producing a similar booklet of its own:

- Official notice of sale
- General information
- The state of South Carolina's program
- Description of the school district of Greenville County
- Map—school district of Greenville County
- Description of Greenville County
- Assessed and actual value of taxable property
- Tax collection record
- Bonded debt

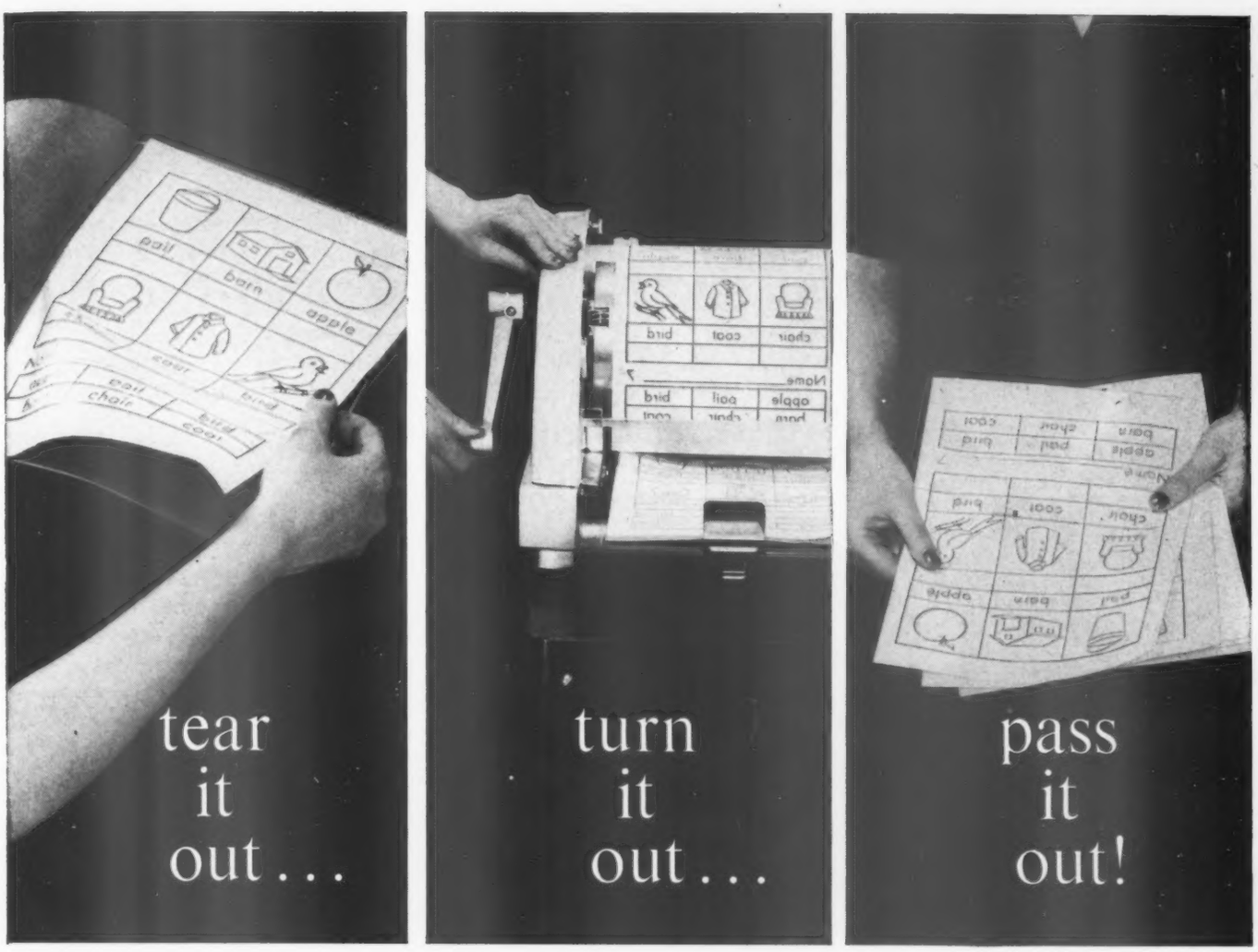
The bond sale

When the bonds were thrown open to bids in August, 1959, five syndicates, representing a total of approximately 30 bond houses, participated. The low bid entered was for an interest rate of 3.516172%. (At the same time, several other school districts in the Carolinas were reporting interest rates on comparable bond issues up to 0.5% higher.)

Needless to say, Greenville County school officials think the time, effort, printing cost and mailing expense involved in producing and distributing the brochure were well spent. They are convinced that it helped stimulate a great deal of interest in their bond issue and have no doubt that it contributed heavily to the favorable bids which were entered. If the interest rate was favorably influenced by even a fraction of a percent, they feel, they were well repaid for their efforts.

They are pleased, too, about an additional benefit which resulted from the distribution of 300 copies of the brochure to prominent citizens, local banks, newspapers, civic clubs and PTAs. This was the strong feeling of public confidence that was generated in the administration's handling of the bond sale.

A similar bond brochure would probably be equally effective in your school district. All of the items of information contained in it would be facts which brokerage houses would seek from your district anyway before entering bids on your bond issues. Why not make it easier for them (and yourself) by supplying the facts on your own? **End**



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(Circle number 725 for more information)

Remodeled "useless" space can give you extra classrooms

Six classrooms and one conference room were created in Lakewood, Ohio, from space that hadn't been occupied in 15 years.

Dingy second floor of Harrison School, unused for 15 years, had sound hardwood floors, plaster walls under accumulated dirt, grime.

Cheerful classrooms resulted from lowered ceilings, unobstrusive woodwork, light-control blinds and uniform illumination through translucent ceiling panels.

■ ■ ■ The unused second-floor section of a 75-year-old elementary school building has been pressed into service to help relieve overcrowding in the Lakewood, Ohio, schools.

Though the area—located in the Harrison Elementary School—had not been used in 15 years, the sturdy old brick structure had sound hardwood floors and plaster walls.

The major problem faced by the renovators (after accumulated dirt and grime had been scrubbed from floors and walls) was 13-foot ceilings. These were lowered—and uniform, glare-free illumination was provided—by the use of suspended translucent ceilings. Five of the classrooms have Wakefield "floating" vinyl-type ceilings (27 by 32 feet), one larger room has a 30 by 32-foot light canopy and the small conference room has a 12 by 16-foot luminous area overhead. Since the perimeters are about one foot from the walls all around, it was unnecessary to cut and fit at corners, around columns or pipes.

For the same reason, no special provisions for heating or ventilating were needed. Heating and ventilation for this section of the east building of Harrison School are provided by a split system of direct

and indirect radiation, circulated by a central fan.

Floors were sanded and brought to a light finish with a reflectance value of about 15%. Interior colors were selected to include a variety of warm and cool pastels to create a comfortable atmosphere in any exposure. Painting over all the dark woodwork and the trim around the 36 windows (each measuring five by 10 feet) eliminated distracting lines and shadows. A green chalkboard coating provided easy reading from any part of each of the six classrooms; tackboards were painted the same colors as the walls to furnish neutral backgrounds for display materials.

In order to provide 35 foot-candles in each room during the darkest hours, fluorescent lamp rows were spaced four feet apart. Five of the classrooms contain 36 lamps each, one has 48 and the conference room has 15. The entire second floor section was completely rewired during renovation with new feeders brought up from the basement.

The visual problem presented by high windows, direct sunlight, sky glare and harsh shadows was solved by installing audio-visual venetian blinds. These provide instant daylight control ranging from soft diffused light to the almost total darkness required for audio-visual sessions.

Superintendent William B. Edwards thinks the rooms in the modernized section, accommodating 150 pupils, are "models of modernizing classrooms in an old school." The coordination of light sources, colors and floor and ceiling reflectances make for a visual comfort and cheeriness that were non-existent in the rooms before renovation. The lowering of the old ceilings to 10-foot levels is one reason for this pleasant effect. And it—and the broad-area illumination—was accomplished for less money than acoustical tile on the old ceiling and suspended lighting equipment would have cost. **End**

For more information on suspended translucent ceilings, circle number 850 on the Reader Service Card.

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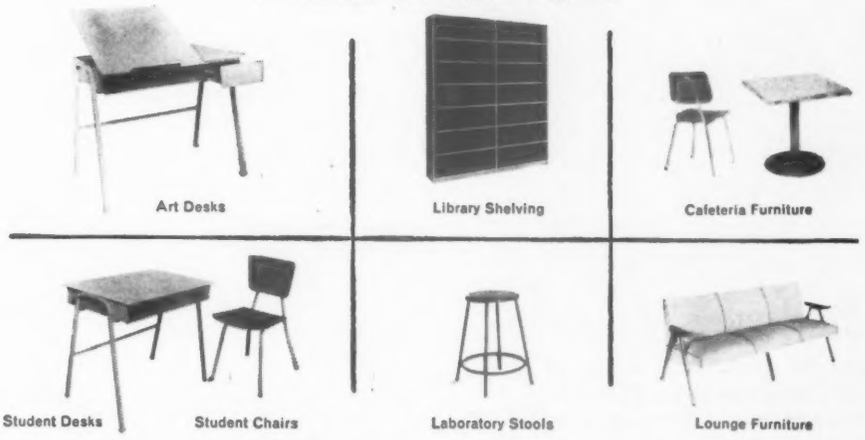

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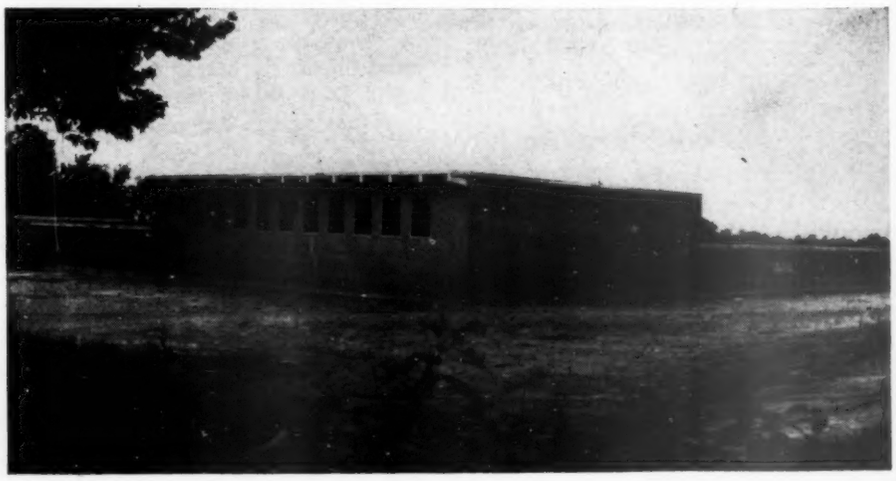
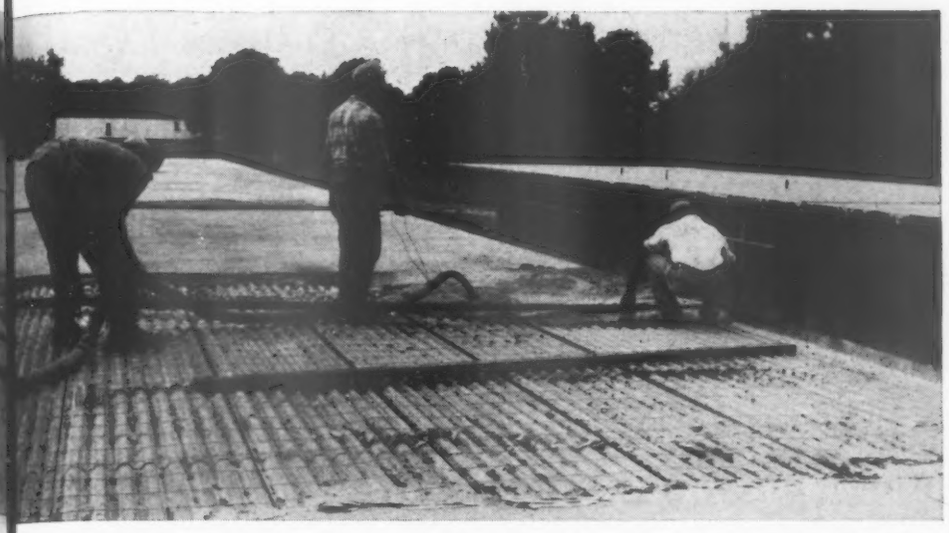
New roof system speeds construction, saves money

In Natchitoches Parish, La., six modern, single-story, masonry schools were constructed in little more than a year for less than $1.5 million.

Exterior view of typical building shows multi-purpose room windows, set high to catch wind, eliminate sun. Window walls have true north orientation.





Pumping system, utilizing tubular rotor-stator type unit, speeded laying of concrete roof. Machine was also used to spray acoustical plastic to room ceilings.

■ ■ ■ An economical new roof system was one of the key features that made it possible for Louisiana's Natchitoches Parish to construct six schools in little more than a year for less than the $1.5 million provided by a bond issue.

Four of the buildings are elementary schools, one a combination elementary-junior high and one a high school. All six schools were designed by Architects Butler & Dobson of Natchitoches.

All of the schools are single-story, with classrooms, multi-purpose room, library, kitchen and lunchroom. The masonry structures are fire-safe and almost maintenance free. Cost per square foot was as low as $7.70, depending on the facilities provided.

Roof system

The roof system combines insulation, noise control, fireproofing and permanence in one "package." The framing is precast four-inch by 12-inch concrete joists with tapering ends. The joists are spaced five feet on center and are 24 feet long, with an additional seven-foot cantilever on the north side and a two-foot cantilever on the south.

continued on page 90

Libraries like this one are provided in each school. Ceiling is composed of vermiculite acoustical plastic sprayed directly to steel sheets of roof system.

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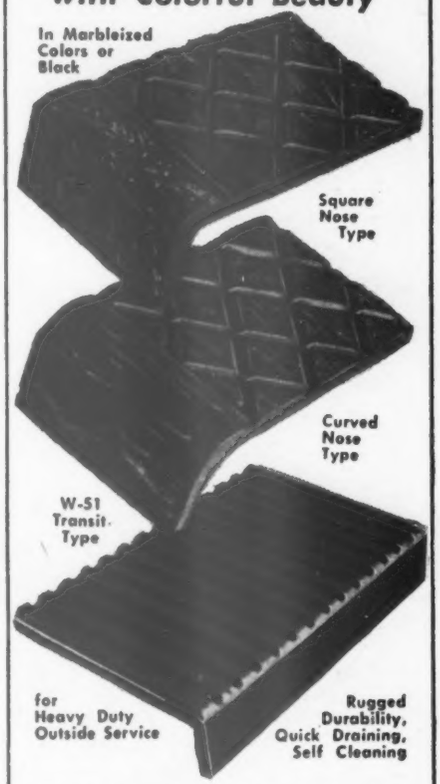
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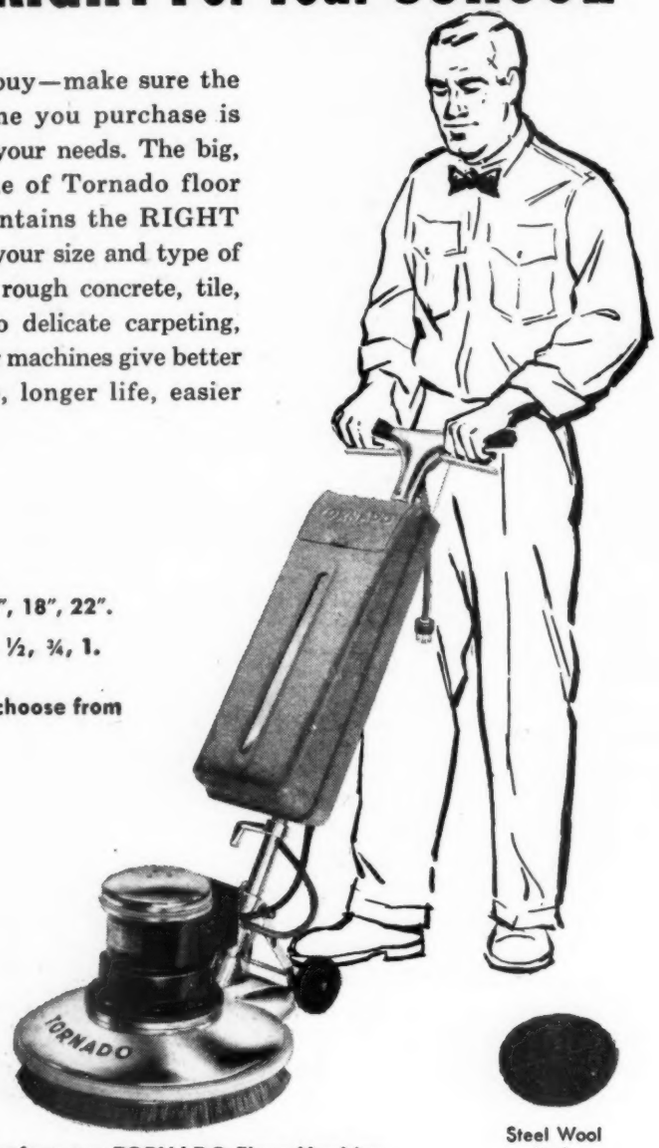

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The roof beams are supported by light tubular steel columns welded to a continuous steel angle at the outside walls.

Corrugated steel sheets are welded to steel welding strips cast into the joists. The insulation is a slab of vermiculite concrete, 1:6 mix (one bag portland cement to six cubic feet of vermiculite concrete aggregate), two-and-a-half inches in thickness over the top of corrugations. The concrete was pumped to the deck and placed with a tubular rotor-stator type pump, a relatively new development for placing concrete economically.

Sound treated

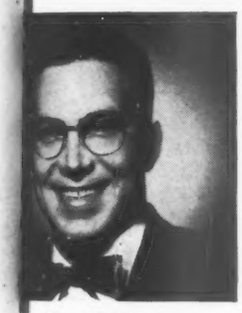
The under side of the steel sheets and the exposed portions of the beams and joists are sound-treated with a half-inch thickness of vermiculite acoustical plastic, sprayed by the new machine method directly to the concrete and to the steel.

The incombustibility of this roof system was a major factor in obtaining low insurance rates. This was important because most of the schools are in areas where there is no fire protection. In studying insurance costs and consulting with the insurance rating bureau, the architects found that the saving in insurance premiums on fireproof construction would pay for the difference in its cost, compared with non-fireproof construction, in about 10 years.

Wiring easier

Another advantage of the roof system is that electrical wiring can be run in thin wall conduit on top of the metal sheets, and covered with the insulating concrete slab. Ordinarily, when the under side of a roof is exposed, rigid pipe conduit must be used in the floor slab and the wiring brought up the walls and across the ceiling to the fixture.

Acoustically, the ceilings are efficient and attractive. Vermiculite plastic absorbs 65% of the noise. The sprayed concrete joists also contribute by acting as a baffle to break up sound waves. Machine-applied vermiculite acoustic has a velvety "pile" that resembles broadloom carpeting, and the decorator white color makes additional painting unnecessary. Various textures can be obtained by a simple adjustment of the machine. **End**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In this pleasant classroom a light value of a warm color is used to counteract the effect of cool light from north and eas

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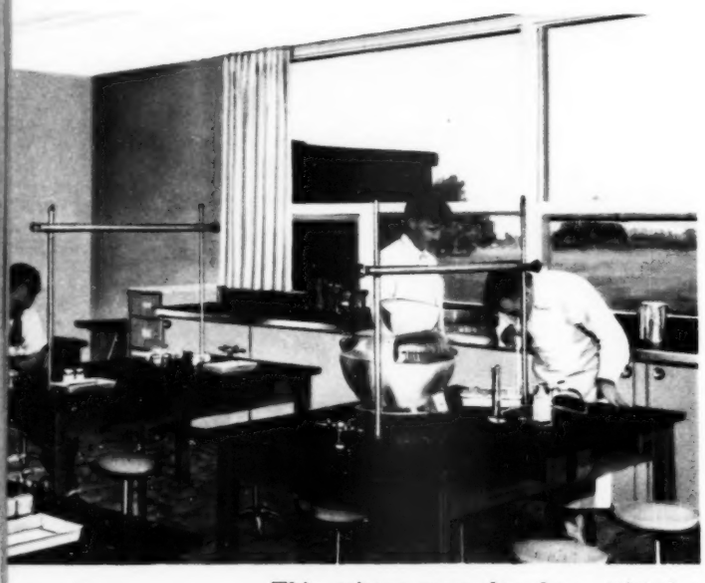

This science room has been painted a neutral hue to make color perception easier.

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cool relief into rooms that face a bright sun. Cold, cheerless rooms are transformed into cheerful areas. Small, stuffy rooms are made to seem spacious and airy.

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L O F GLASS

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How to find and select a superintendent

Here are the experiences of one school board that turned to university consultants for help in the search for a new administrator.

By ROBERT BROWER
Member, Board of Education, District 21, Wheeling, Ill.

■ ■ ■ The task of selecting a new superintendent is one of the most important any school board will ever face. It may take more energy and work to plan and sell the construction of a multi-million dollar high school, but selecting the man to run the educational program in your district is a decision of much greater import.

When the seven-man school board of District 21, Wheeling, Ill., was confronted with this responsibility recently, we made a major admission before we took steps in any direction: None of us were experts in the field of education. We needed assistance from professionals.

We turned to nearby Northwestern University where we were able to obtain the assistance of Dr. Jack Childress, assistant dean and professor in the college of education. With Dr. Childress' assistance, we worked out this four-step plan for the selection of a new superintendent:

1. Setting down the school board's aims and presenting them in readable form.

2. Conducting a search for qualified candidates.

3. Conducting interviews with selected candidates.

4. Making a final selection of the person we wanted to serve as superintendent.

Setting down aims

Setting down the aims of a school district is no easy matter. We may each know in our minds what our district wants, but putting these desires down on paper, so that they make sense to an outsider who wants to join the community, is a major chore.

We held several long school board sessions with full attendance guaranteed. We broke our work down into two sections. The first was to prepare a complete and concise description of our community to be given to prospective candidates. Among the characteristics we thought it important to include were: a short history of the growth of the district; its general location in regard to Chicago; the educational, cultural and recreational advantages we offer; the industrial growth within the community; the type of homes available, and the church representation of the area.

The second section was a comprehensive survey of the qualifications we felt were important for the new superintendent. This included such items as his education, experience, background, and educational contributions. The salary range we were prepared to offer was included, but we reserved the right to adjust the range to the individual candidate.

We felt that with this information available, potential candidates could decide whether they were interested in us. The next step was to find the potential candidates.

The search

We left the job of contacting prospects almost entirely to our consultant. Working through his own university, through other university placement centers, and through personal contacts around the nation, Dr. Childress built a list of almost 60 applicants for the job.

These 60 were screened by Dr.

Childress and others at Northwestern University who selected the 10 most promising. The names and backgrounds of these 10 were reported to our board, and the other applicants were notified, by Dr. Childress, that they were no longer under consideration.

The interviews

All interviews were handled by the full school board and the university consultants. Two candidates were interviewed in an evening. The school board provided dinner and paid all expenses involved.

At the first few interviews the consultants took the lead in questioning the candidates. Later, board members gained sufficient skill—and confidence—to carry most of the interviewing themselves. This we attribute basically to the work of our consultants who never made us feel like inferior intruders on the educational scene. This is an essential difference between good and bad consulting services.

The interviews revolved around a few pre-determined key items that we felt were most important in determining who was the best man for the job. Among the areas we were most interested in were: the candidate's ability to meet and work with the public; his leadership potential; his ability to work effectively and cooperatively with teachers; how he planned and followed through on programs; his ability to coordinate school activities; how he delegated authority; and his relationships to the school board.

Final selection

When we had interviewed all 10 candidates, we narrowed the field to three by a process of elimination. These three candidates, and their wives, were invited back to the district for a second visit.

On this second trip the candidates spent some time visiting our schools and our interviews with them were more specific than before, being based, partially at least, on what they had seen that day.

Our final decision was made by the board alone. Actually, since candidates were well screened from the beginning, any of the last three would have worked out well. The board had little opportunity for error at this point.

Consultant fees

How much did our board have to spend for consultants? In this case the total fee came to just $800. This would vary, of course, with the consultants, with the amount of work they were asked to do and with the method of payment chosen—on a *per diem* or contractual basis. It has been estimated that standard consultant fees for this kind of work range from $700 to $1,000.

Our total search lasted six months. We feel that the fee we paid was well earned—and well rewarded—since we have as our superintendent exactly the right man to carry on the program we want.

An interesting by-product of the total search for a superintendent was greater understanding on the part of board members of the superintendent's job—and ways in which we can help him.

Our board is thoroughly convinced that we used one of the best methods for selecting a new superintendent. We feel confident that we served our community well in the process. **End**

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(Circle number 708 for more information)

Here's how you can do something to control the cost of liability insurance.

Are you over-paying for public liability insurance?

By DR. T. H. MARTLAND and E. M. BAUMGARTNER

Dr. Martland *is business manager of Central High School District No. 1 in Valley Stream, N. Y.*

Mr. Baumgartner *is Corporate Casualty Manager of Murray, Vander Poel & Baker, Inc.*

■ ■ ■ The public liability insurance policy has the greatest premium cost of all coverages offered to a school. Very often the liability premium is larger than all other insurance premiums combined. The added cost, which most often makes the burden of this premium difficult, is the "debit." (A debit is an added charge as a result of an insured's poor experience as reflected in the experience rating plan.) Last year one district paid over $19,000 for $10,000 worth of public liability insurance because of its debit. This debit was the result of unfortunate occurrences and a claim-conscious public. Some people seemed to feel that the school district was "rich" with insurance and that an accident would be paid for by an insurance company at no cost to themselves or the school district. Little does the public realize that the money paid by the insurance company directly affects the cost of insurance and eventually the tax rate.

The following ideas and suggestions may help reduce a poor experience rating and thereby effect considerable savings in insurance premiums.

What a school district can do

The public liability insurance program should be established with the cooperation of the insured, the insuring company, and the broker or agent. Each has a role to play in a successful insurance program. The school should establish a procedure for fast, prompt and accurate reporting of claims. This procedure would establish a method whereby accidents would be reported to the school nurse. She would then be responsible to expedite the claim through the building principal to the business office. In this way the building principal will be well informed regarding any occurrence. The business office is responsible for contacting the insurance agent, broker or company. This procedure is best established in cooperation with the agent or broker involved because of the obvious necessity of the "team" approach to the problem.

A very important part of an adequate liability insurance program is how coverage is provided for outside groups and contractors while they are on school property. A school district of which we have knowledge took contracts for the construction of a new school upon which a workman was injured. It became evident that the general contractor did not have a liability policy in the name of the school district, nor did he enter into a hold-harmless agreement with the district. Due to these omissions, the workman is suing the district for $50,000 for an accident for which the school district was not responsible. In another claim, an outside group used a school gym for a dance. The group promised to maintain adequate supervision as per the school board's request. When the dance occurred the group provided less than adequate supervision with the result that school property was damaged and a child was seriously injured. The parents of the child are now suing the district, not the group responsible, for the accident. Of course, any suit of this type is reflected in the district's experience rating, which means higher insurance costs.

What to do about it

These cases bring to light three possibilities for protection which should be considered every time an outside group or contractor has access to school property or facilities. The first would request the contractor, or a group desiring to use an auditorium, for example, to obtain an insurance policy, at adequate limits, in their own name, and give to the district a certificate as evidence that such a policy is in force. The second would require the outside group or contractor to add the interest of the district to such a policy or issue a policy in the name of the school district for adequate limit covering the parti-

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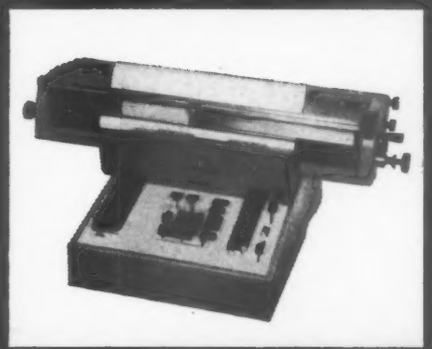

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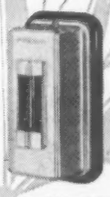
(Circle number 735 for more information)

cular activity of the outside group or contractor. The third would require a written hold-harmless agreement where the outside group or contractor assumes the responsibility for the activity and agrees to take action on behalf of the school district in the event of an occurrence. This agreement should be an insured agreement.

Whenever the district requires one of the above-mentioned methods of protection the district's insurance agent or broker should be involved. He can be helpful in the draft of the agreement, along with the school's attorney. The agent or broker must be informed so that he can advise as to the deletion of the activity from the district's regular policy. In some cases there is a possibility of duplicate premium charges. In other cases, no specific premium is charged on the district's regular policy.

An important allied coverage is accident insurance. A pupil accident insurance program, paid for by either the school or the individual pupils, will help the public liability situation in two ways. First, it will pay claims promptly without consideration as to liability. Second, an accident policy will take care of what are considered nuisance claims. These claims tend to be small and are based upon medical costs incurred by the claimant because of alleged accidents. They usually have no basis in negligence on the part of the school. However, the prompt payment of these claims under an accident policy tends to satisfy potential claimants who might bring suit under a public liability policy. If claims are referred to the public liability carrier, that carrier must set a reserve upon receipt of the claim. Whichever way an action is resolved, the reserve represents added premium costs.

The school district also needs to spend some effort in the area of public information. It is important that school representatives inform a claim-conscious community that spurious claims add costs to insurance premiums. These added costs, as all others, are borne by that community in the form of taxes. The local broker or agent and the insuring company usually are very willing to help the school district establish a public information program to help in this regard. **End**



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(Circle number 742 for more information)

5 steps to a prosperous cafeteria

Here's how a suburban Milwaukee high school cafeteria converted a $7,600 loss into a $1,500 profit.

■ ■ ■ The Nicolet High School, serving four northern suburbs of Milwaukee, changed its cafeteria operation from declining participation—and red ink—to steady participation—and black ink—in one year.

Five important steps were adopted as cafeteria policy in September, 1958, by N. P. Cupery, school principal, and J. A. Lawrence, business manager, to bring about this change.

Here are the five cafeteria management principles that have since been followed.

1 Increased student participation

Low student participation—with resulting low dollar volume—and high labor costs were prompting parent inquiries about cafeteria operations. Mr. Cupery organized a student committee to review the reasons why students were not eating the lunches served by the cafeteria. He discovered that:

1. Many students wanted changes in the menu.

2. Since January, students had been operating a snack bar that served ice cream and cake.

It was estimated that these two factors were costing the cafeteria about 200 student meals per day. So an attempt was made to include in the menu the kinds of meals the students asked for—without compromising nutritional standards—and the snack bar was eliminated.

The student committee continued to meet and was broadened to include a committee of parents, too. Two reports were made by the parent committee. The first included suggestions on menus and serving procedures; the second endorsed the new steps adopted during the school year.

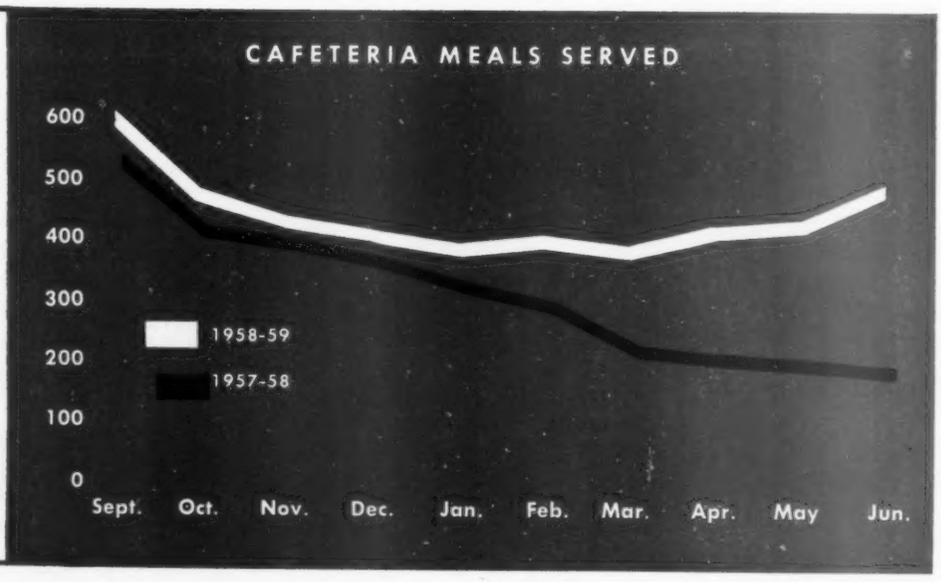
One immediate result of all these efforts: cafeteria participation held at a steady 400-450 per day from October through June (*see chart*).

2 Pre-count student participation

During the 1957-58 school year a significant cause of loss in the Nicolet cafeteria resulted from the preparation of too much food and the employment of too much labor. This imbalance grew out of the kind of meal ticket used. The ticket had five stubs which could be used

TOTAL RECEIPTS AND EXPENDITURES

	1957-58	1958-59
Receipts		
Meal tickets	15,646.60	31,824.59
State aid	4,350.00	4,050.97
	19,996.60	35,875.56
Expenditures		
Labor	9,712.56	10,723.40
Food	17,966.49	23,620.80
	27,679.05	34,344.20
Profit (or loss)	(7,682.45)	1,531.36



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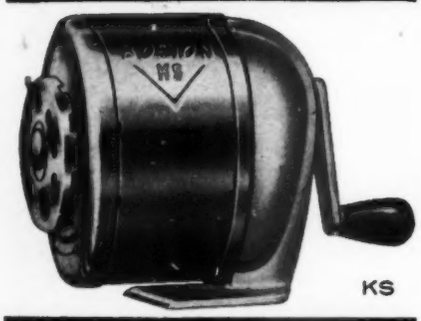

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at any time. A student could buy a five-day meal ticket, use one stub Monday, none on Tuesday, one on Wednesday, sell three stubs to friends on Wednesday and not use a stub on Thursday or Friday. This complicated the head cook's job since she never knew how many students to prepare for on a given day. Frequently there would be enough food and help for 300 students when only 200 meals were served.

In September, 1958, students began purchasing five-day meal tickets good only for one week. Each stub was designed for use on a particular weekday only—Monday, Tuesday, etc.

The school office sold all tickets on Monday before 9:30, and the total number sold was phoned in to the head cook. If she knew, for example, that 425 meals would be needed, she could budget both food and labor accordingly. This ability to predict daily participation eliminated almost all of the former food and labor waste and permitted more precise portion control and pre-fabrication of meals. On all days but Monday the following day's portions could be counted and measured so that the purchasing could be done in bulk, at lowest cost.

Planning ahead meant that a 10% increase in dollars spent for labor in 1958-59 served almost 50% as many students as in 1957-58 (*see graph and financial statement on page 102*).

3 Speed up the serving line

Food, to be appetizing, must be served in handsome surroundings and it must be served with the least possible delay.

By reducing the length of reach necessary to dish food from the Nicolet cafeteria's steam tables and by having each student carry his own plate, it became possible to serve approximately 200 students in 10 minutes.

Since the school scheduled two lunch periods, students knew they would be served without undue wait.

One problem remains, however —the sharp drop in participation in the first month of each school year. It is believed that this fall-off is a result of a longer delay because of the unusual press of students, as well as the fact that the incoming freshmen all eat in the cafeteria at first.

4 Training the cafeteria help

As neither Mr. Cuprey or Mr. Lawrence was familiar with detailed cafeteria operation, the Milwaukee County Cafeteria Supervisor, Tom Farley, was called in. He offered many suggestions in menu planning and food fabrication that resulted in sound nutritional menus and reduced time in preparing meals. Among other things, it was decided to always serve hamburgers on Tuesday, have a roast on Wednesday and an optional meat or fish meal on Friday.

5 Daily food cost forecasts

While a monthly financial report shows the past history of an operation, it doesn't shed much light on future planning. With daily food forecasts, however—knowing that 425 tickets worth 35¢ each were purchased—it became easy to see that total food and labor costs could not exceed $148.75 per day. As labor became a fixed item of $59.57, this left $89.18 for food. Added to this was approximately $22.50 per day of federal lunch program aid, for a total of $111.68. To supplement this a large amount of surplus food was received under the federal lunch program, enough so that no butter was purchased and purchases of vegetables and cooking staples were held to a minimum. The head cook knew that any day she served a meal costing more than $111.68 she would run in the red. This meant that daily costs could be accurately determined, and the monthly budget reports reflected this net profit or loss.

Cafeteria operation was now under such close financial control that at no time during the school year was there any question of operating at a loss similar to that experienced in past years. The actual year-end profit was slightly larger than anticipated. Net result: proof that day-to-day fiscal cafeteria management and control can produce a successful operation. **End**

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Mr. Stromberg at the site of Caldwell—West Caldwell School District's newest high school.

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SM FOOD CLINIC

Richard Flambert answers your feeding questions

QUESTION: Why pay a food service consultant to design our kitchen when an architect or an equipment dealer will do it free?

■ No businessman can afford to do any free work. In one form or another a school district pays for every service it gets.

Years ago, equipment dealers designed and laid out food service areas as part of the service rendered by them. Designers and draftsmen on their own staffs were obviously paid a fair salary. The dealer hoped that his design would result in his getting the job, in which case the cost of this service would be absorbed by the equipment ordered.

Equipment dealers are not food service consultants, nor are they educators or cooks. They are highly ethical businessmen engaged in selling equipment—not *all* equipment—but the equipment they have to sell. For this reason any specifications set up by equipment supply houses would of necessity favor the lines they carry, which need not or might not be the best equipment for the particular school.

Because of business pressure and competition by the newly formed groups of food service consultants, many equipment houses are charging a percentage of the cost of equipment for their design, with the understanding that if the particular equipment house gets the job, the cost of this service will be absorbed. But again let me ask, "What free service?"

In the case of architects, more and more of them are relying upon a professional consultant to assist them in this highly specialized field of food service planning, just as they rely upon electrical, mechanical and other consultants. Few architects are experts in the field of food service design. Many of them rely upon equipment houses to do their work. Architects do not do this work free either, as the school district pays the standard percentage fee for this part of the building program.

I state again, "There is no such thing as free service."

QUESTION: What is the National Sanitation Foundation seal? Our architect advised us to buy only cafeteria equipment carrying it.

■ The NSF seal is affixed to all equipment which is approved by the National Sanitation Foundation. The NSF is a nonprofit organization composed of representatives of the food service industry, as well as food service magazines, sanitarians, manufacturers, etc. The headquarters are at the University of Michigan, Ann Arbor, Mich. Research is done on the quality and sanitation aspects of all food service equipment. As complete sanitation is critically important in the serving of food stuffs to children, we urge that all school cafeterias conform to the requirements of the NSF code, and insist that the architect or food service consultant specify these requirements in their equipment specifications.

About the author. Richard Flambert is a partner in the firm of Flambert and Flambert, San Francisco, St. Louis, Omaha and Chicago, food service consultants and engineers specializing in schools and institutions. He is president of the International Society of Food Service Consultants.

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A monthly review of ideas, new products and helpful hints

Teachers, past and future, solve lunch problems

Two mid-western school districts have solved the problem of lunch hour supervision in elementary schools by turning to past and future teachers to help out.

In Mound, Minn., Superintendent Dale G. Nelson relates that teachers have been "emancipated" from lunch hour supervision through the use of former teachers. "We bring in and pay former teachers for supervising during elementary lunch periods," Nelson states. "The former teachers do a good job and needless to say our regular elementary teachers appreciate a duty-free lunch break."

In Ashland, Ohio, Superintendent J. L. Baird has looked in the other direction for lunchtime help. He has turned to the teachers-to-be studying at Ashland College.

Students from the college are paid to supervise the youngsters during the lunch period. In most cases they are actually adding to the school program by changing the after-lunch period into a time for organized student activities. Most important, they are giving regular teachers an important mid-day break.

All-year school may stagger Miami

A new version of the all-year school has been advanced by a member of the Dade County, Fla., school board. Mrs. Anna Brenner Meyers, author of the plan, says it has never before been tried.

The plan is designed to make more use of school facilities while eliminating many parental objections that have been raised to the idea of all-year schools.

Under the traditional all-year school, the year is divided into four quarters, with each student attending school during three. This means that some students would be off during the summer, but the great majority would have their vacations during fall, winter or spring months.

Mrs. Meyers' proposal is featured by a provision closing schools completely for two weeks during Christmas and two weeks in the summer. This would assure large families of having all their children home at once at least four weeks during the year.

Under the plan, students would attend school during three of four 12-week sessions during the year. But the sessions would be overlapped, with students getting four weeks off three times a year, rather than having one long summer vacation.

Here's how it might work: The first grade could start classes in September. Four weeks later, second grade would be in session. Another four weeks would pass before third grade started. By the time the fourth grade was starting, the first graders would have completed 12 weeks of school and would be ready for their first four-week vacation. The fourth grade classes would use the space vacated by students in the first grade.

Following through with the first graders for a full year, they might attend school for 12 weeks during September, October and November. After a four-week break, plus two extra weeks for Christmas, the students would return to school in early January and start another 12-week term. In late March and through most of April, they would have another vacation. The third, and last, 12-week term, would start in late April and run into July. Then would come four weeks of regular vacation, plus two weeks of general summer vacation before school started again. The students, now in the second grade, would start their first 12-week session in early September, as they did the year before.

This staggered system would permit students to enjoy vacations during all seasons of the year, but would still increase school capacity by one-third. It would also end for many students the long three-month period with nothing to do, often referred to as summer vacation.

Look who's talking

A survey conducted by the New York City school system reported that students found their courses ". . . covered too much ground, required too much homework, placed too much stress upon examinations, used some lecturers who were poor teachers . . . failed to enroll homogeneous groups and failed to provide adequate time for the exchange of ideas."

The courses: *Mathematics, biology, physics, chemistry, earth science, general science and astronomy institutes conducted last summer by the National Science Foundation.*

The complainants: *284 teachers in the New York City school system, each of whom, we suspect, says "nonsense" when a student claims his course ". . . covers too much ground, requires too much homework, etc. etc. etc."*

Teacher-run fire drills build experience, confidence

When a fire alarm goes off in a Norwood, N. J., public school, not even the building principal knows whether it is just a drill or a real fire.

Under a unique plan developed by Administrative Principal Donald W. MacKinnon, the two fire drills required monthly in each school are planned and executed by assigned teachers.

At the beginning of the year MacKinnon prepares a list giving the names of the two teachers in each of the system's buildings who are responsible for fire drills each month.

Sometime during the month one of the assigned teachers goes to the nearest alarm box, breaks the glass setting off the alarm, returns to her classroom and conducts her students out of the building. Some of the more enterprising teachers arrange with custodians to block off certain exits to test the ability of others to adjust to unusual situations.

MacKinnon feels that this system provides two great advantages over the usual fire drill. First, teachers who habitually complain about the interruptions drills cause are much more sympathetic toward the idea after they have been called upon to run one. Sec-

ond, the principal himself is forced to exert leadership on a moment's notice without prior warning.

The experience is also a unique one for most of the teachers. "I had never been called upon to actually set off an alarm and a survey showed that this was true of most of the teachers too," MacKinnon said.

One teacher, flushed with excitement after conducting her first drill, admitted, "I've never been so nervous in all my life. I didn't know how to break the glass and after I did, I was torn whether to brush the broken glass off the corridor floor or hurry back to my class. This has been a good experience. When may I do it again?"

Students run pre-school problem-solving clinic

Students of Houston's McReynolds Junior High School are running a unique 40-minute pre-school problem solving clinic designed to help faltering classmates with their studies.

About 75 students are members of the McReynolds Coaching Club. They gather in the school cafeteria each morning and offer their services to any students who wish them. Not all of the members are top students in all subjects. Several give aid and comfort in one subject, then move over to get help from fellow student-teachers in others.

Organizer of the club was Mrs. M. W. McFarland, school counselor. "We have found a student may feel a teacher will think he is stupid for asking some questions about a course," she said. The coaching club gives them an opportunity to get information without the risk seemingly involved in querying the teacher.

The club is currently helping 300 of the school's 1,300 students. Failing grades and poor marks have fallen off in the year the club has been in existence, though failures cannot be eliminated completely ("some fail because of their inability to master the subject matter or because they don't come back often enough").

The club's greatest victory was scored when two students took in hand a ninth grade girl who had been failing algebra tests consistently. The two coaches found their subject's problem—she didn't know the principles of factoring—and worked on it for five mornings. The next week she scored the first in a long string of top algebra grades.

Moreover, the club got a bonus. The girl, who is a whiz at history, joined the club as a teacher and is now helping other students in her specialty.

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spondence School, from Pennsylvania State University and from many other reliable agencies and colleges. These are excellent courses. Materials are prepared by specialists in their fields, and they are well-supervised within the local schools.

4. Electronic aids

Q. You imply that you lean heavily on electronic aids, particularly in your multiple classes. How are they being used?

FOWLSTON: This area of electronic aids is the newest of the project. The need for them came into existence because of the needs of teachers, especially those working with multiple classes. For example, in Franklin, a math teacher developed a considerable number of tapes for his multiple classes in intermediate algebra, trigonometry and 11th year math. In Franklin, too, the language program would not be possible without tapes and other electronic devices. We are hoping to experiment with an "auditron." It's a glorified juke box which will make reading selections or debates —Senate debates—available to students for their personal listening and enrichment. Margaretville is already doing this.

Q. Do students operate these devices by themselves?

MATALAVAGE: Yes. That is another advantage to a small school learning situation. The pupil becomes a teacher and he must learn to operate the tape recorder, the record player and the movie projector.

Q. Isn't there a rigidity to a course which is taught by tape as opposed to a course taught by a teacher?

MATALAVAGE: I think in any class situation a good teacher will recognize the needs of the kids. The tape is only a supplementary device. The teacher in the class is the teacher. The tape is not substituting for him; it is used only when it can do a job that the teacher doesn't have to do.

Q. How about other electronic devices. Are you using films?

GIVIDEN: Very definitely. We are using Dr. Harvey White's filmed physics classes for one. They are being used in some schools where there are physics teachers and in others where the teacher's primary area of competence is in another science, although technically he might be certified to teach physics. The physics film has been used in Margaretville by a girl who had a course conflict. She couldn't get in the physics class so she chose to take the program by film.

SOUTHWORTH: The films also allow us to bring very expensive pieces of apparatus, that none of us could afford to own, to our students.

Q. How about television, closed-circuit or otherwise?

FOWLSTON: That is an area that we have not explored too much, so far, because of reception difficulties. But we are looking into it now.

Q. Don't these electronic devices represent quite an investment, in terms of each one of these schools having to have tape recorders, projectors, etc?

FOWLSTON: Most schools have had a tape recorder for some time. We are now making much greater use of these devices which have always been available to us. If we make enough use of them, we can justify the expense.

"Most schools have had tape recorders for some time. We're using them!"
FOWLSTON

5. Flexible scheduling

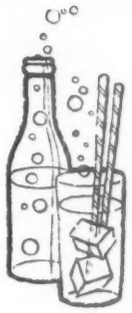
Q. How do you handle inter-school scheduling? It's usually a big problem even in a single high school.

GIVIDEN: Last year we ran a survey on central schools in New York State—on 161 of them—and we found that all but 25 or 30 used eight- or nine-period days. Now this is what Dr. Conant recommends. But we found that this was more disorderly than a six- or seven-period schedule because the kids were out in the hall more, going from class to class. And each class is sliced up into 40 or 45 minutes. About the time they get settled, it's time to go somewhere else. Most of the schools involved in our kind of flexible scheduling have cut down on the number of periods in the day and extended the length of the period.

MATALAVAGE: In Margaretville we have a seven-period schedule in a six-period day. In addition, we have what we call two "X" periods each week. These "X" periods are used to schedule assemblies, special activities, student council meetings, music and band, etc.

On Mondays we schedule the first five periods and an "X" period. On Tuesdays we start with the sixth period then move through seven, then one, two, etc. The subjects always come in order. It seems to create confusion when you first look at the schedule (*see box, page 112*), but once you get used to it, it's very clear.

GIVIDEN: We questioned the students in Margaretville last year and they said they liked the sched-



HOW CHILDREN RESPOND TO SOFT DRINKS

in school food and refreshment facilities

When bottled soft drinks are available within school limits, youngsters are encouraged to stay on school property at lunchtime. In addition, soft drinks provide attraction . . . and a preferred refreshment keynote for after-school dances and other events. Social activity is more readily supervised and promoted.

To these social values of soft drinks, must be added two other important factors:

1. DIETARY VALUE: Soft drinks are accepted in dietetic planning as an "accessory food." Like relishes, they accent the diet healthfully.

Soft drinks provide 100 calories of food energy per 8 ounces in easily assimilable form—a helpful contribution during the school day to pupil alertness and interest.

2. WHOLESOMENESS: As you know, the body loses 2½ quarts of fluid each day. Soft drinks help restore body fluid balance. Carbonation adds zest and palatability. In addition, soft drinks aid digestion and stimulate appetite. Because they are liquid, soft drinks pass quickly through the mouth, with virtually no involvement in oral conditions related to dental problems. Recent dental research reaffirms this thinking.

These are some of the reasons why soft drinks have a place in the food and refreshment facilities of our schools where bottled beverages are easy to store, handle and serve economically. If the subject of soft drinks in schools comes before your Board, talk it over with your local bottler. He's a tax-paying businessman of the community, dealing in products which contribute to the local economy in the same way as other food products served on school premises. He's entitled to a fair hearing.

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ule better because it wasn't so monotonous as the old one. Each day was different.

MATALAVAGE: There's an advantage, too, in that we don't have the same class meeting at the same time every day. I would hate to teach algebra in the last period every day. Once in a while I get it first thing in the morning.

SOUTHWORTH: We have, in Richfield Springs, a six-period day, 58 minutes for each period and two minutes on each end to pass. We schedule in much the same way that they do in Margaretville. The main change we have found from old schedules is that we have fewer study halls. And by rotating classes around, we have found that when students have to be pulled out of a class for one reason or another—for example for athletic competitions—they are not always being pulled from the same class. They might be leaving English one day, algebra another, study hall a third.

FOWLSTON: There is nothing startlingly new about our ideas. We were having trouble in Franklin finding time for music classes to practice. The music teacher was taking students out of regular classes. We never had time enough for class meetings. The second problem we had in our school was the fact that our basic classes were not long enough and we had too many study halls. We felt that our study halls were a waste of time. We were organized on an eight-period day of 45 minutes each. We increased the class length to a full 50 minutes and reduced the number of periods to seven, thereby eliminating at least one study hall from every student's schedule. Some had had as many as three study halls a day!

"Flexible scheduling has meant longer periods scheduled four times a week."
GIVIDEN

Now we have a definite period when class meetings are scheduled every two weeks. We have definite periods scheduled for band and orchestra that are clear of all others. When we have these so-called "X" periods, the students who are not partaking in the scheduled activity meet with their regular teachers just the same as they would on an ordinary day. The teacher uses that time for supervised study and for helping students who are behind.

Q. Doesn't this play havoc with the student who needs or would like extra help, but also wants to be in the band?

FOWLSTON: You can't have your cake and eat it too, no matter what kind of a schedule you use.

Q. Under all of these flexible scheduling set-ups, it appears that most classes meet just four days a week. Does that meet state requirements?

FOWLSTON: Yes it does. But many of our students do get in the fifth day if they are not in the band or whatever other particular activity is scheduled in the "X" period.

GIVIDEN: Flexible scheduling, ingeneral, has meant longer periods scheduled four times a week instead of five; revolving periods giving each class an opportunity to meet at optimum learning times during the school day; and, at Milford, it means morning and afternoon schedules that are interchanged every few weeks.

Object is to provide more flexibility in the instructional program. Longer class periods provide the teacher more opportunity to supervise the study of his own students,

Schedule for typical Margaretville senior

	Mon.	Tues.	Wed.	Thurs.	Fri.
8:45–9:43	1 French IV	6 English	5 Phy. Ed.	3 Chemistry	1 French IV
9:45–10:43	2 Amer. His.	7 Band	6 English	5 Phy. Ed.	2 Amer. His.
10:43–10:50			BREAK		
10:50–11:48	3 Chemistry	1 French IV	7 Band	6 English	3 Chemistry
11:50–12:48	4 Latin II	4 Latin II	4 Latin II	4 Latin II	5 Phy. Ed.
12:50–1:10			LUNCH		
1:12–2:10	5 Phy. Ed.	2 Amer. His.	1 French IV	7 Band	6 English
2:12–3:10	x Activities	3 Chemistry	2 Amer. His.	x Activities	7 Band

Note: *Numbers in block corners designate the number of the period. Fourth period is "locked" four days a week so that industrial arts students from Fleischmanns, a nearby school, can come to the teacher and facilities in Margaretville.*

In addition to the schedule shown, this student attends a Saturday advanced humanities class for able and ambitious students in Oneonta.

to help them individually and collectively when necessary. The opportunity to help individual students is one of the advantages of a small school. But we have felt that the eight- or nine-period day that had been borrowed from big school situations did not give these schools the opportunity to use what was their inherent advantage. Flexible scheduling has increased our opportunity to give individual help. So has the use of school aides to free teachers of clerical duties.

6. School aides

Q. School aides? Do you mean teacher aides, such as those used in Bay City, Mich.? Are these helping teachers?

FOWLSTON: They are not teachers. If anyone uses them as teachers they are being misused in terms of what the Catskill Project is designed to do. An aide is a person who assists in a school. She assists a teacher to carry out non-teaching activities such as collecting lunch money, supervising study halls, taking charge of attendance, duplicating previously prepared tests for teachers, recording grades on permanent records and report cards, etc. Those are the areas in which we are using our school aides.

Q. In other words, your teacher aides are taking over some of the clerical and disciplinary duties?

FOWLSTON: Not disciplinary. At Franklin, we don't believe that a school aide should be on her own with any student without the supervision of a teacher.

SOUTHWORTH: We should make this distinction between teacher aides as many schools use them, and school aides as they are used in the project here. School aides serve multiple purposes—they will serve many teachers instead of being assigned to one. Incidentally, this program has really caught on. For example, I think there were only 12 school aides prior to the inception of this project. This year there were more than 50 at latest count.

Q. Who decides what they do?

GIVIDEN: Basically, the principal, in discussion with his teachers.

Q. In other words, this would not be a case where Mr. Matalavage says, "I want you to correct math papers today," and his aide does that work?

GIVIDEN: If the school aide were assigned to him for a period, he might do that. But the school aides must have a pretty good understanding of what they are going to do before they start. If they don't, you have a confused situation and nobody is helped. The principals and teachers in each school must get together to define the areas in which school aides are going to work and then they must be scheduled in the most efficient manner.

MATALAVAGE: In our own school I think the school aide provides an opportunity for a teacher to spend much more time in planning, particularly for the more able students. This is where I find them helpful.

Q. How much are these school aides really being used?

GIVIDEN: It varies from district to district. Hancock is using six aides. South Kortright is using four aides 35 hours a week. Two others are being used for a much shorter period of time.

MATALAVAGE: In Margaretville we have two school aides. One works just a few hours each week, the other about 30.

Q. Are there any schools that have no school aides?

GIVIDEN: Yes. Three schools have no aides. The schools in this project are involved to varying extents. In some, they're doing almost none of the experimental things. Others, such as the Franklin school, are involved in almost all areas. And within each school there is a great variance in the number of teachers who are taking part. Scheduling is the one phase of this project which requires the cooperation of every member of the teaching staff. When you change the master schedule you change things for everybody. For this reason, our schedule experimentation has not gone so far as some of the other areas.

Q. In other words, these programs may affect only one teacher in a school or they may affect the whole school?

GIVIDEN: People have gotten the impression that this experimentation has touched everybody to the same degree—that we have revolutionized the schools. We think there are some revolutionary things happening but they are happening in isolated spots. They are happening on the part of interested teachers who want to explore things. They are happening because some administrators show special interests. This is what happens when you have 27 autonomous school districts participating in a project voluntarily, according to their interests and their needs.

FOWLSTON: I think it is remarkable how little we have been dictated to as to what we are going to do in our own schools. It is left up to the individual school. When we joined the study council, the areas we chose for experimentation were left entirely up to us. We could sit back and not participate in any of these things. Even so, we would still derive benefits because we share in the material that comes out of the experiments. So we are all benefiting from it, whether or not we are actively participating.

7. Looking ahead

Q. Are the things that are being done in the Catskills applicable only to small schools?

GIVIDEN: Definitely not. Many of the things that we are doing in these small schools would be equally val-

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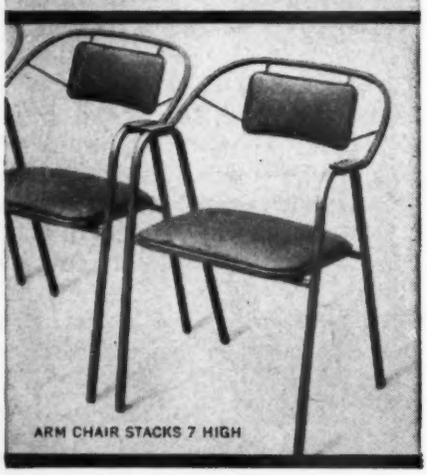

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uable to large ones. School aides, correspondence courses, the use of electronic aids would be as valuable in a school with 1,000 students as in one with 50.

Q. Do you feel you have an adequate substitute for centralization?

SOUTHWORTH: What we are doing is in no way in opposition to centralization. I believe that one of the main reasons we are not centralizing—aside from the financial disadvantages—is that people don't realize what centralization can mean to their schools. By doing the things that we are doing, we are performing many of the tasks that would be performed by enlarged districts. I think that these experiments may actually hasten reorganization by showing people what bigger districts can do.

Q. Aren't these programs much more expensive than the ones you were running before?

SOUTHWORTH: Oh yes. But for what we are getting they are a bargain.

Q. You've been working on grants from the Ford Foundation. Suppose the Foundation were to withdraw its money tomorrow. Would you have to give up your programs?

SOUTHWORTH: I don't think that we could carry the staff we have now, but I think that we would be willing to put in money to carry on with certain parts of the project.

Q. When you say staff, what are you talking about?

GIVIDEN: We mean the staff of consultants, coordinators, etc., who are working with the schools. I would be out of a job. But as far as the total school budgets are concerned, the amount of money being contributed by the Foundation is comparatively small.

FOWLSTON: We'd continue our multiple classes. We'd still have school aides. We'd buy tapes. We have to buy them anyway. The Foundation has a policy against buying equipment. The only thing it can do is to provide money for substitutes, travel expenses and consultant services.

Q. In other words, the Foundation money is simply to give you an impetus to get started?

GIVIDEN: Yes. I think the great loss, if the Foundation were to pull out, would be that we would lose our permanent coordinating organization, unless the coop boards supported it. It is through this coordinating organization that we have the resources to try experiments and research.

SOUTHWORTH: But if the cooperative boards, of which there are seven in the area, really desire to undertake research, and each board put up $2,000, that would be $14,000. It's not a lot of money but it would be a start. As far as money for travel, meals, and things like that, they are a very small item in a budget of nearly $2 million.

Q. Where do you go from here? What is coming next?

SOUTHWORTH: I would like to see some sort of a research project set up here that will continue study groups. We could support it, if necessary, through our cooperative boards. I think the big field now will be shared services.

FOWLSTON: I think I would agree with Mr. Southworth. School aides are here to stay. We may go along finding new ways to make use of those aides however. But this is a local matter. I don't think we would need the project to do that. I do feel that there are terrific advancements to be made through electronic aids. Perhaps this project will stay alive for two or three years more to investigate these things. We're hoping that through the college we can start an experimental teacher education program.

GIVIDEN: I think one of the beautiful things about this project is that it expands horizons. I think there is no limit to the experimentation that we can do. No doubt most of the districts would go ahead on their own in some areas but I hope the Foundation continues its support—at least until all the district superintendents and school boards are willing to support cooperative *research* in rural education. We believe that intensive experimentation in such things as multiple classes and electronic aids can make the revolution in small school education a reality.

FOWLSTON: We have small schools in this area and we are proud of them. They may not be able to offer as diverse a curriculum as your big city schools but we are doing our best to make them as good as possible. We are convinced that small schools can be good schools. **End**

Parents know little about present and future costs and even less about how to meet them.

not college endowment policies but give financial aid only in case of a parent's death.

3. The median amount saved last year by those with a specific plan in effect was $150. Ten years of such saving would pay for one year of college for one child at today's going rate.

4. Forty-one percent hope for some type of scholarship aid; 28% of all parents expect their college-bound youngsters to earn their way through school.

Roper's survey points up one inescapable fact: the flow of information—from school counselors, guidance personnel and all other sources—to parents about college costs is so inadequate as to be misleading.

What parents should know

The average yearly expense faced by students attending member colleges of the College Entrance Examination Board stands today at $1,736. Costs range from a low of $162 at one municipal school to $2,950 at an independent college. Expenses at a majority of the 250 member institutions fall between $1,000 and $2,000; costs at the top quarter of these schools are above $2,000. Only 6% of the schools list costs below $1,000.

These figures include only basic costs—tuition and fees, books and supplies, room and board. Not included are such items as entertainment, clothing, travel and that catch-all, miscellaneous. This last group of expenses can loom large depending on such factors as:

1. Whether the school attended is public or private.

2. The size of a family's income.

3. Where the college is located.

4. What the student's habits—and needs—are.

There are some colleges in which "hidden" costs of residence form a considerable part of the total outlay. Unless parents are informed about the extra expenses that can be incurred by the purely social aspects of attendance at certain schools—and are prepared to meet them—their youngster's stay in college can prove a severe disappointment.

There are many cases on record of able and bright high school students, without the means to compete socially at more exclusive schools, achieving poor grades and amassing unhappy memories of their undergraduate days. Most of these situations could have been averted by some carefully chosen advice from a guidance counselor.

There are some schools at which yearly expenses total $6,000. Such cases, of course, are exceptional. Far nearer the requirements of the average student is the estimate of personal expenses published by Harvard University. This suggests that a budget of $400 yearly should be enough to meet all of a student's needs with the exception of tuition, and room and board. Travel, if the student's home is far from Cambridge, Mass., is extra.

There are a number of published sources to which parents should be referred when making their initial investigations of a suitable college for their children. Among them: "The College Handbook," cited above; "Lovejoy's College Guide;" "American Universities and Colleges" and an excellent volume, just published, "Is College for Me?" This last, directed at teen-agers, has some highly informative chapters on college costs, together with suggestions on how they can be met.

Can a student work his way?

The time-honored method of paying for college expenses is for the student to work his way through school. But a great deal depends upon the school in question. Are there enough jobs available to meet student demand? And much, too, depends upon the student. How much of an outside work load can he assume before it affects his academic performance?

Opinions vary concerning the optimum outside work load a student can safely accept (*see box, pages 62-63, for a cross-section of opinions*) but 10 to 15 hours per week seems to be the limit generally agreed upon. Considering that the average wage is approximately $1 an hour, a working student can count on $300-$450 of earned income per 30-week school year. This, combined with any additional income he might earn during the summer, could pay for a major share of his college costs, *provided* expenses at the school of his choice are modest. If he has set his heart on a more expensive school, he will be forced to investigate other ways to obtain financial assistance.

The student may already have looked into the availability of scholarships to help him through college. These are offered by many of the schools themselves, as well as by a wide variety of business, religious and fraternal organizations, individual states and groups and foundations. (A substantial list of such sponsored scholarship programs appears in "The College Handbook.")

On the face of it, it might seem that there are plenty of scholarship programs available. Forty-one percent of the parents Roper interviewed are planning to make use of them;

but in most of the colleges checked by SCHOOL MANAGEMENT, a much lower percentage of students receive such aid. Scholarship funds are becoming increasingly harder to find. And with higher enrollments in the next decade, chances are these funds will become rarer still.

Student loans

There is one other avenue of financial aid open to the student who has exhausted other means of meeting college costs—student loans. Most colleges have some system of lending money to needy applicants. In fact, some educators feel that making education available on a loan basis is preferable to the work-and-study alternative.

On-campus student loan programs, however, are generally of an emergency nature designed to help the student out of a temporary financial hole. Consequently, loans rarely go beyond $500, though some schools set limits as high as $2,000. In addition, many colleges will not lend money to freshmen.

Under the National Defense Education Act of 1958, the federal government stepped into the picture with a student loan program that permits the borrowing of up to $1,000 a year for five years. Repayment needn't begin until a year after graduation and—if the student becomes a teacher—10% of the loan is forgiven for each year of teaching up to five years. In other words, under these conditions, only about half the loan must be repaid.

But here again, the demand has far outstripped the supply. In his year-end report, Secretary of Health, Education and Welfare Arthur S. Fleming declared that there would not be sufficient funds to meet the requests of participating schools "during the remainder of this school year or to make commitments for students planning to attend the 1960 summer session and those planning to enroll in the fall."

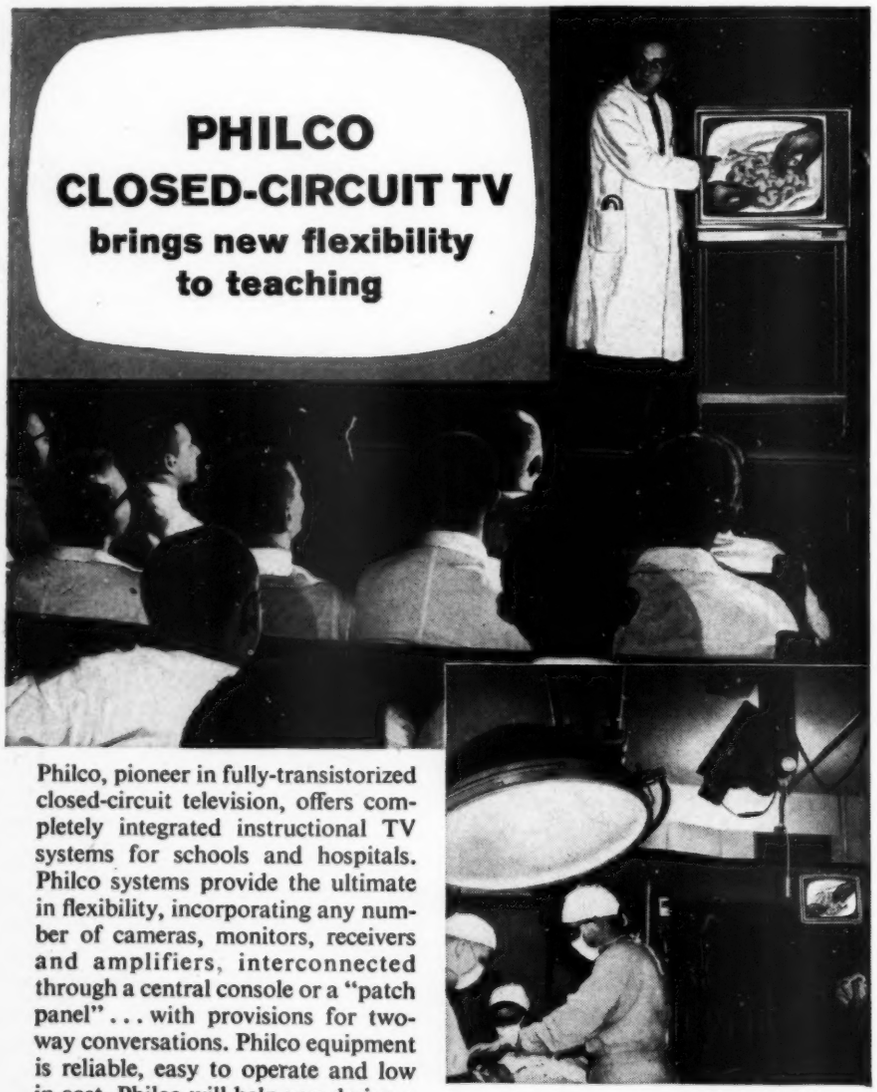
Installment buying is also being experimented with in some quarters. Under the plan a private organization advances the total amount needed to cover college costs and the student's family pays off the debt in installments.

But the whole idea of long-term borrowing to pay for higher education is repugnant to many serious educators who feel that few students are willing to mortgage their futures.

The idea, too, conflicts with the avowed purpose of state universities and colleges to be integral parts of every state's free public school system.

The only certain prediction that can be made about the cost of college is that it is bound to mount in the coming decade. Whether or not these increased costs can be offset by greatly enlarged scholarship and loan programs is anyone's guess. One thing most parents can be sure of: the classic American tradition of working one's way through college will become more and more difficult every year.

The best way parents can insure their children's college education is to keep well informed about the real costs they must meet. Their key source of information for this purpose must be the high school guidance counselor. He can fill the gaps in their knowledge and—from his better understanding of the over-all picture—direct students' attention to schools that are within their academic and financial grasp. **End**



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(Circle number 754 for more information)

In-service

continued from page 60

5:00 p.m. There is some collateral reading required, of course, but not too much. Most of the work is simply a matter of direction and evaluation of material together with Dr. Christie, and some correlation of workshop results with actual classroom experiment.

Q How do you handle the cost of consultants? Do you hire them on a retainer, pay them by the day, or what?

MAC CALMAN: We pay expenses and *per diem* on all consultant service, but we try to be flexible, depending upon the consultant and the group he is guiding. We have offered retainers in the past, but in most cases a consultant is so tied up with other work that he prefers to work on a *per diem* basis. There have been instances when Dr. Christie, for example, has been able to come down for an entire day. When that happens we throw four substitutes into the "AD" classes in order to free the regular teachers so that they can work with him on school time.

Q. The cost for that is appreciably more than the cost of the consultant, isn't it?

MAC CALMAN: A bit more, though we haven't done too much of this in the past. We have five consultants at the present time. All our costs for the in-service training program—including peripheral expenses for substitutes, consultants' travel, needed materials—run to about the salary of one full-time teacher at our median point, $6,600-$6,700. This cost is budgeted as an augmenting instructional expense. In other words, it is money spent for improving instruction in our district.

Q. What are some of the other ways in which you use consultants in your in-service program?

SCHILD: First of all, we don't bring them in simply to conduct a course—to give a series of lectures or demonstrations to a group of teachers. They bring their knowledge and experience to bear on problems that have already been studied and—to some degree—thrashed out by an existing in-service group of interested teachers. At some point along the way, that group may have decided that it needed the assistance of an expert in the field under discussion. This is where the consultant comes in and works as a resource person for that particular group. Our elementary science committee, for example, worked for two years on developing a new syllabus before it requested the services of a consultant. He arrived last year and helped get the syllabus into its final form. Now he's working on grade level workshops to give teachers experience with the equipment they'll use in class under the new course of study. He is supplementing the work the committee has already done, you see. He's not just coming in to tell them what to do.

Q. Do you ever keep the same consultant for more than a year?

MAC CALMAN: Yes, if the program calls for it. Continuity, in certain areas like language arts, is extremely important.

SCHILD: That would apply to our science program, too, under Raymond Kenyon from the New Paltz State College of Education. He's probably done more with elementary science than anyone in the state. He's working with the 20 teachers in our elementary science group to make sure that the material they developed in the past two years will really be utilized in the classroom.

Q. Only 20—but you have 70 or 80 elementary teachers?

MAC CALMAN: That's true, but even seven or eight of the 20 are in each elementary building. More important, they come from across the grade levels. So we have teachers on this committee from every grade level and every elementary building. They serve as resource people within their building units.

Q. Do these people hold meetings with other building teachers to tell them about what they've learned in the workshop?

MAC CALMAN: They do, and quite often Dr. Kenyon sits in on them to help the workshop members explain the new materials and teaching techniques that have been developed by the in-service group. In addition, each teacher has been given two volumes of material that has been produced as a by-product of our elementary science study.

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MAC CALMAN

Q If some other school district tried to follow your lead, couldn't it bring in a high school science teacher to conduct the elementary science workshop?

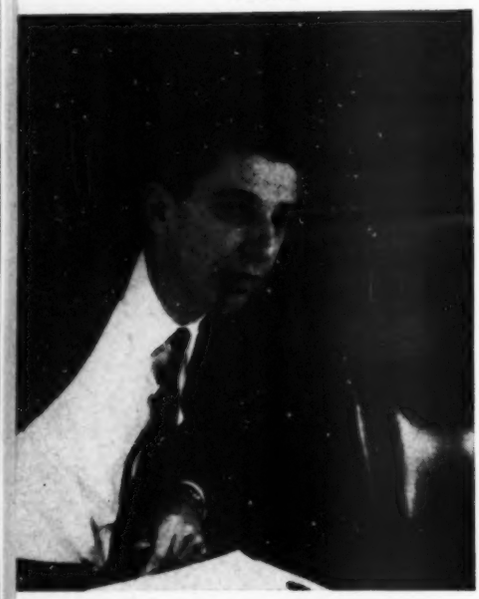
MAC CALMAN: If we hadn't been able to secure Dr. Kenyon's services we might very well have gone to our senior high school department head for this purpose. But I do think that anyone handling this program would have to be familiar with elementary teaching and elementary children, as well as have a knowledge of science. Luckily for us, Dr. Kenyon combines all three.

Q. While we are on the subject, how do you coordinate between your elementary and secondary schools on science, now that you have introduced science into your elementary grades?

MAC CALMAN: The junior high teachers have been in on the meetings of this elementary science study from the beginning, so we have had a continuous carry-over there. In addition, we hold a series of meetings every year on articulating programs between grade levels. A few weeks back, we had a meeting of seventh, eighth and ninth grade science teachers during which we ran through the science material that was being covered by each grade. Remember, as our elementary sci-

"We have to keep pace with the changes in educational emphasis and translate them into classroom terms."

SCHILD



ence program is stepped up it is going to require a revision of the junior high science curriculum, too. At the present time we are preparing a testing program for the beginning year of junior high to determine how much science background our entering students have. The junior high program will be reshaped on the basis of the results we get.

Q You have a very highly developed program here. But let's take a district that is smaller than yours—perhaps half its size. Wouldn't it be feasible to have fewer workshops or to have building-oriented workshops directed by the principal?

SCHILD: The principal could handle such workshops—depending on the size of the units. It would all stem from the circumstances and the resources available. Here in Nyack we feel that it's paramount that we have someone who is familiar with the entire system supervising the program. The work of all of our committees has to be put together to make a reasonable and recognizable whole. That, I suppose, is one of my main jobs. How does one group's findings fit into our over-all program? How can we coordinate the work of different groups? How can we improve communication between grade levels and between buildings? These are questions I seek answers to every day.

Q. If the primary job of the principal is educational leadership, couldn't he be expected to supervise the in-service program—at least within the building—in a smaller district?

MAC CALMAN: That's being done even in our own units at the present time. A teachers' group may work independently on problems peculiar to one building.

SCHILD: I would like to emphasize, too, that the principals are still performing as instructional leaders in the sense that they are involved in the committees within their buildings. This is part of our idea of administrators and teachers sitting together. We believe in it. We put a lot of emphasis, too, on the principal's role as the instructional supervisor in his building. He's the man responsible for proper application of new findings in his classrooms.

Q. Does it ever happen that a group's recommendations are turned down?

MAC CALMAN: We put into operation a lot of the recommendations that are made. Sometimes, though, we do not think it feasible to utilize the committee's findings. In that case, we tell the staff exactly why, at one of our fall meetings. This is an absolute must—you can't leave your teachers hanging.

Q. What would be an example of an unacceptable recommendation?

MAC CALMAN: We have an in-service committee now working on modern language curriculum. It is doing a lot of research work on language laboratories. We use tape recorder units and other language lab equipment. We'd like to do more with this equipment than we are financially able to do. But it does not seem that the expenditure called for in a complete language laboratory in a system of our size quite justifies itself at the present time. So, on a language lab recommendation we are going along part way by installing tape recorders in all language classes. But we can't spend thousands of dollars on a complete language laboratory—we're not equipped to do that now.

Q. Who comprises the "we" you speak of?

SCHILD: This would be a case of administration and school board working together. The committee's recommendation would come to Mr. MacCalman, Joseph Phillips, the assistant superintendent, and myself, and we would review it. Certain questions evolving from that would be cleared by the board.

MAC CALMAN: The fact is, though, that very little of the material coming out of our committees now is unacceptable. Our workshops this year are directed much more closely than ever before at work which both teachers and administrators agree should be done. We sent our math department head out to several leading technical schools recently to get answers to the question of what kind of mathematics program we should be offering in our schools. Half of the instructors he spoke to wanted us to up-date our math program; the other half suggested that we stick to traditional subject matter. This gave us something to chew over in our mathematics study group; we decided to move a little more slowly.

Q Does an in-service program, such as yours, provide college credit for the teachers in it?

MAC CALMAN: It doesn't provide college credit. It does provide credit which we use on salary schedules. Every year we get state approval of our in-service courses. The state gives no permanent licenses—it gives temporary licenses. During the period of temporary license, the teacher must take six points of university work or approved in-service work—one or the other. These in-service patterns, if they run to 30 hours and 15 sessions—we run 15 two-hour sessions—will credit the teacher with two points. Some of our teachers use it, some of them don't care about using it at all. We take these two points and apply them to our salary schedules in the same way that university credits are applied.

Q. Do you conduct any workshops that are not devoted to teacher orientation and curriculum improvement?

MAC CALMAN: We are running some that are not necessarily devoted to

curriculum. The one working with Dr. Miriam Goldberg, Columbia University, is not a curriculum workshop. It's a review of the developing elementary school child; a teacher participation unit working with an expert from Columbia University who is familiar with all the factors of under achievement.

SCHILD: One other aspect of our program that would not fall under curriculum is the work of Dr. Robert Cleary of Educational Testing Service, Princeton, N. J. He has a tremendous background in statistics, mathematics and testing and helps us analyze our test data. If we have a problem interpreting our STEP tests, for example, we call him in. He helps us develop studies, too, to determine how we can make our scholastic aptitude tests more usable in grades below 11. We can take it down to seventh grade, for instance, to find out whether or not a youngster is college material—and if so, what kind of college material.

MAC CALMAN: Sometimes we use several of our consultants on somewhat broader projects. Right now we're conducting a study on underachieving youngsters and Dr. Cleary, Dr. Goldberg and Dr. Bond are all advising us on how to proceed with it.

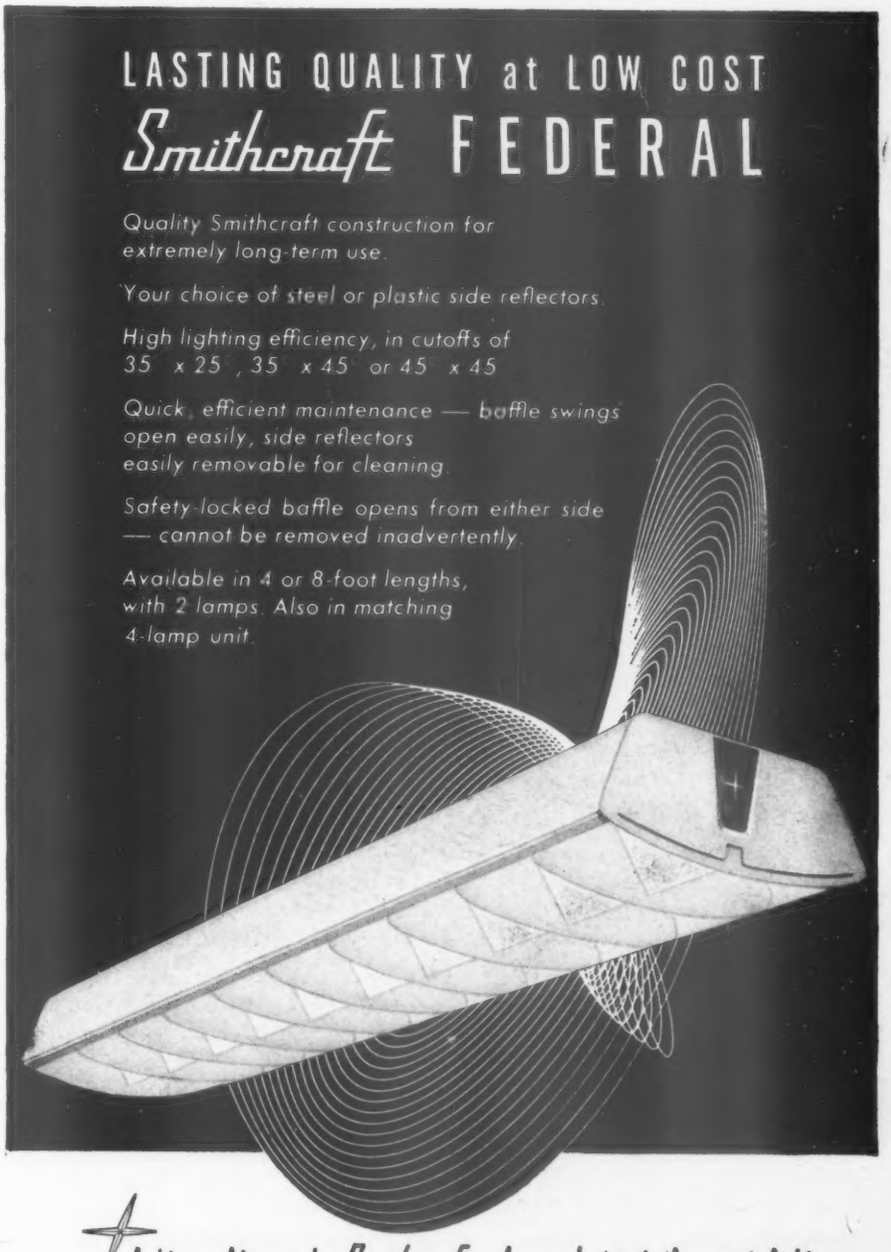
Q. To what extent have you found your in-service program to be helpful in recruiting better teachers?

MAC CALMAN: That's hard to say. When we talk to teacher prospects we emphasize our committee and group work because we want the type of teacher who is interested in that kind of approach. Whether our applicants are of better calibre as a result, I don't know. It may be one reason, though, that we have attracted more people who are interested in the team approach to education—we basically travel on that team approach. But we do not use our in-service program as a positive recruiting force—it is not a sales pitch.

Q. Do you use any objective instrument to evaluate your program?

MAC CALMAN: Through our reaction sheets at the May conference we ask our teachers what they got out of the preceding year's program and what factors ought to be considered in setting up the workshops the following year. I don't think, though, that there is any testing instrument by which you can evaluate our kind of program. You can only work with your teachers' groups and get their reactions to it. And you can examine what has happened to your curriculum as a result of the program.

SCHILD: This seems the only feasible way to keep informed about the radical changes taking place in many subject areas—mathematics and science, for instance—and applying them at the pre-college level. After all, 10 years ago you could place a youngster with a college board score of approximately 500 in any Ivy League school you chose. That same college now demands a score of 700 while the work within the college itself has intensified accordingly. We have to keep pace with the changes in educational emphasis and we must translate those changes into terms that our staff can use in the classroom. Our in-service program provides us with the means of keeping on top of these changing educational demands. **End**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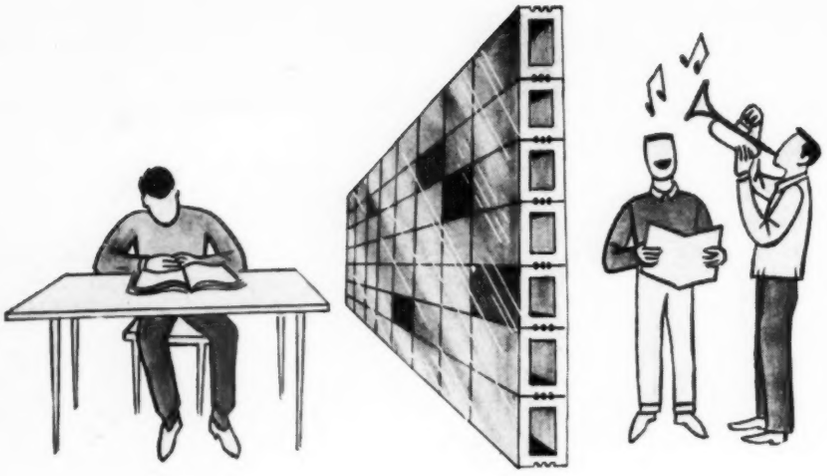

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Yours for the asking

continued from page 26

areas and alphabetically by title. Grade level recommendations are given in both sections. The catalog also presents information on the use of the school's library, a listing of Indiana University film productions and a description of the program for professional study in audio-visual communications offered there.

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Physical sciences catalog. A 112-page catalog containing specifications for over 300 exclusive products used in the physical sciences has been issued by the Ealing Corp. Items described range from optical benches and cathetometers to galvanometers and electron impact tubes. Through a plan of special supplements to users, the catalog will be kept current on a quarterly basis.

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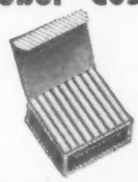

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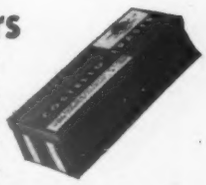

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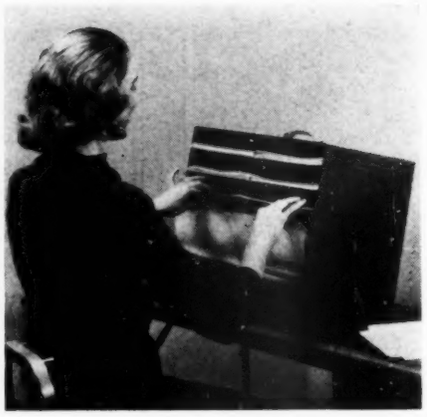

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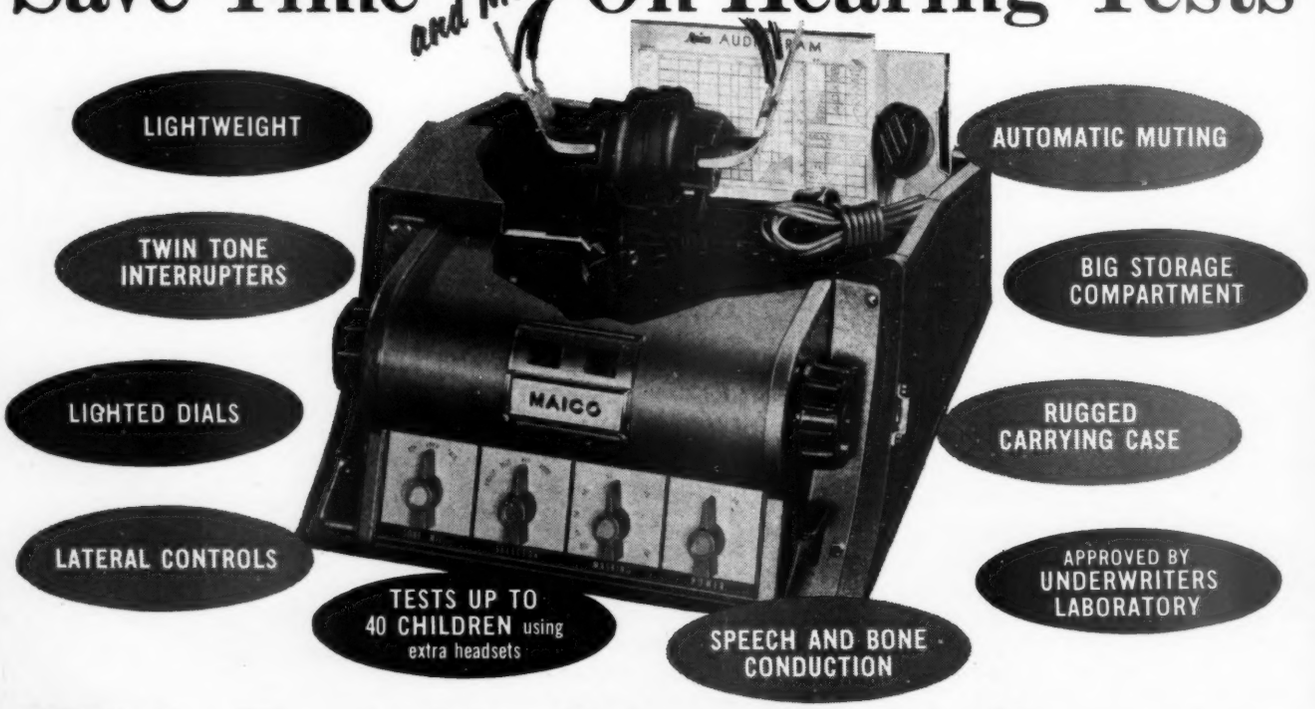

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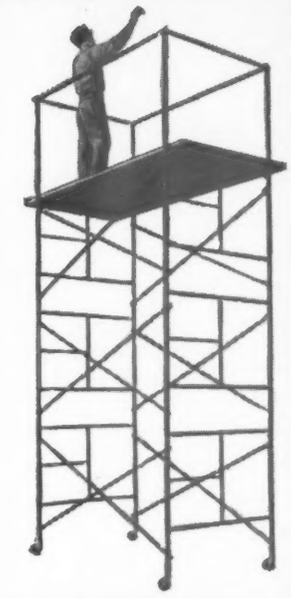

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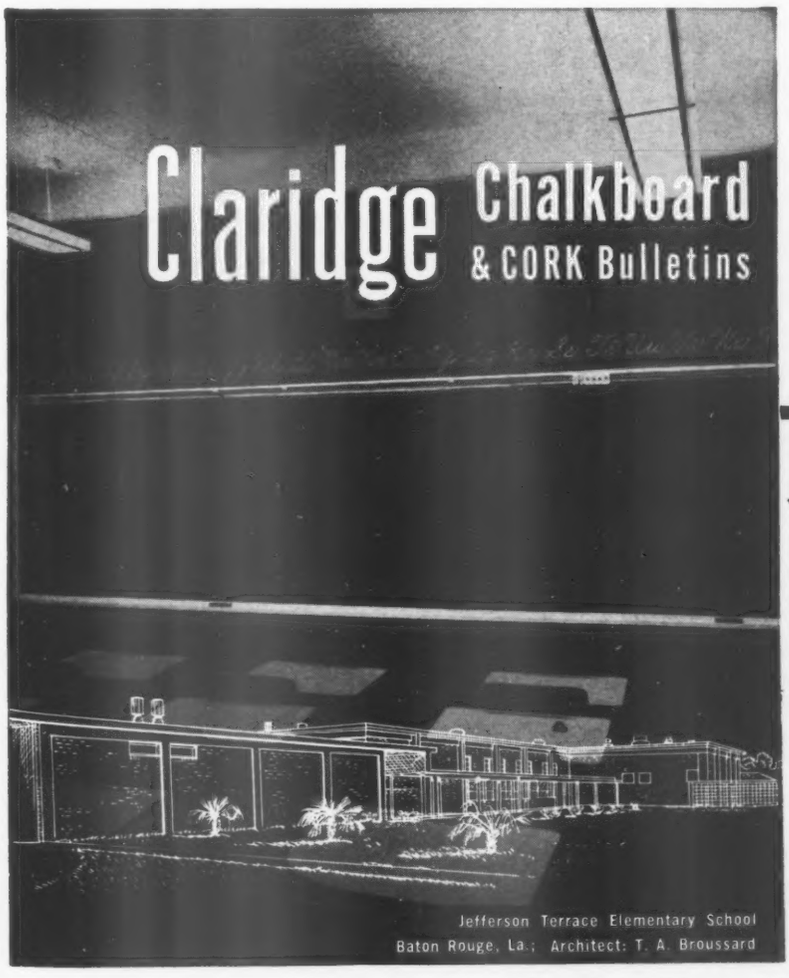

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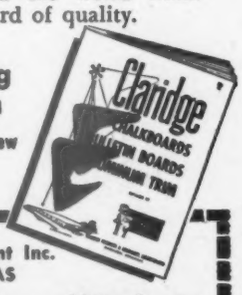

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of forms is placed in the register, up to 200 individual receipts can be written without interruption. There are no carbons to insert or dispose of, no loose books or form to misplace and all copies are clear and legible.

For more information, circle number 895 on the Reader Service Card.

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Unbreakable urinal

A wall-hung urinal of unbreakable cast aluminum is available from the Aluminum Plumbing Fixture Corp. New design flushing gives positive scouring action to walls, while water action discharges contents. Height from the floor is variable. The crackproof, damageproof, tamperproof fixture is available in white or pastel colors.

For more information, circle number 880 on the Reader Service Card.

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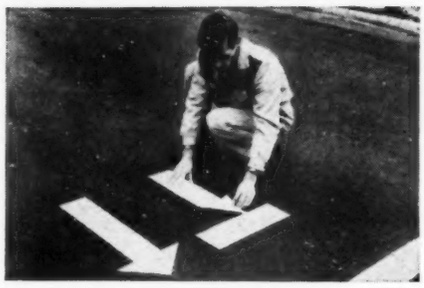
Vinyl floor marker

A tough, vinyl-type material with pressure-sensitive backing is offered by Morgan Adhesives Co. for floor and highway marking. The new material can be applied by one person without brushes, tools or special machines at a saving of up to 50% or more over present marking methods. No barricades or drying time are necessary—traffic serves to increase the marker's adhering qualities. Available in bright white or yellow, the material comes in standard rectangular strips, sheets or rolls.



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Bus water pump

An auxiliary water pump for installation in the heating systems of school buses is now available from Bergstrom Mfg. Co. It is designed to restore heater efficiency to bus systems by providing full pressure for a continuous, even flow of water at a rate of six gallons per minute. The pump is compact—7⅞" in over-all length. It is easily and simply installed at any convenient point in the water line. The pump body is of aluminum alloy and the impeller is of special design to insure high efficiency.

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Low-cost lab projector

Designed to project actual, on-the-spot laboratory experiments so students can see them in progress, Edmund Scientific Co.'s low-cost, 35mm. overhead lab projector should prove helpful to chemistry and biology instructors. Operation is easy—materials to be studied are placed in transparent plastic cells for projection and magnification on the screen. The new Projectolab is equipped with a three-element, 80mm. focal length f/3.5 anastigmat lens and a fast 28mm. focal length, four-element, f/1.2 lens for microslide projection.

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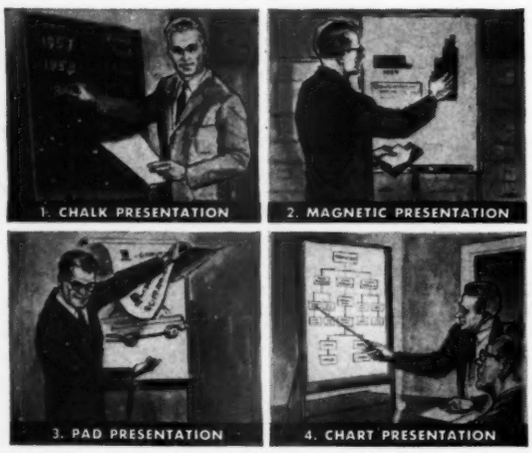

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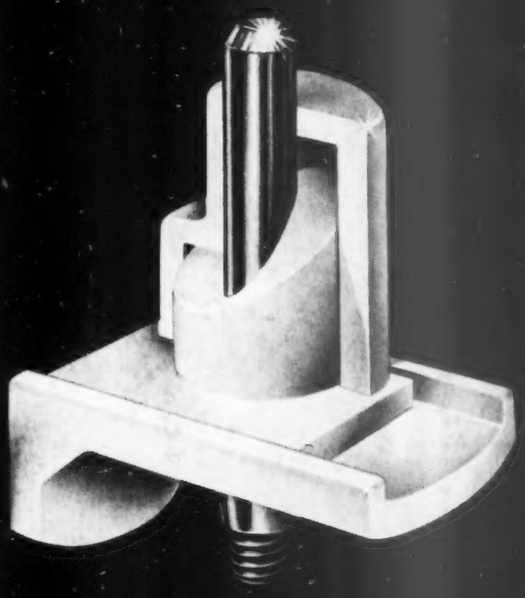

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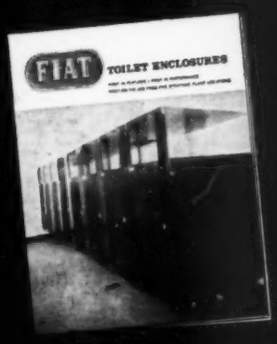

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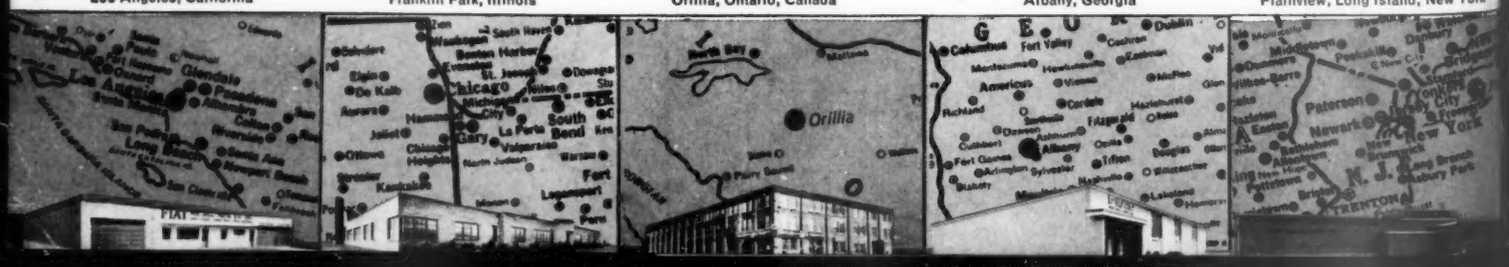
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